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ABOUT CURRENT CONNECT

It gives us immense pleasure to present an innovative approach to master current affairs. Current is a passing wind and diverse issues happen at the same time. It is to an extent chaotic. Newspapers, magazines and various other sources report the chaos per se. With our experience of current **affairs we have tried to give “the current” a medium to travel. It is the syllabus of the UPSC with their components that are the medium through which the “Current is Passed” to the readers.** Ever since the new syllabus of the UPSC came into existence, current has been gaining significance both at prelims as well as mains examination. This book is meant to cover current affairs and related questions arising from those events. We have not only covered the current events for their factual contents but also presented it in such a way that any question asked from that topic gets covered. Moreover, topics are also “peppered” with the relevant facts/key concepts that are related to the theme. We have also given questions for practice both, subjective and objective, so that candidates are oriented to the examination mode. It is a collection covering myriad source yet in a manageable size. To use this book we recommend you to master the components of general studies (GS) syllabus as broken into rows and columns (provided in the beginning after preface). Each cell comprising of the portion of GS becomes the connect for the current and every news subsequently covered guides the reader to the address of the syllabus. It is logical to expect that same issue may be connected to more than one topic of the syllabus. Further, the news also has some additional vistas opened for the readers by adding a box **with a title “PEPPER IT WITH” where we expect the students to build further around the theme.**

We are also trying to reach the remotest part of the country with our **spirit and zeal of “Mains Answer Writing”, which has** been admired by students, CSE rankholders and other scholars. Continuing in line with the effort, we have started with programs like 7 Question (7Q) Challenge, Shell Points, Stock Points, Content Enrichment Booklet etc.

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Team KSG

polity

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GS - I	Culture-Art Forms, Literature and Architecture from ancient to modern times.	Indian history significant events, person	Post independence issues, National boundary and disputes	Indian society features, issues, globalization and diversity	Women - issues and developments	Urbanization – problems and remedies	Distribution of industries and resources – India and world	Geophysical phenomena such as earthquakes, Tsunami, Volcanic			
GS - II	Indian constitution- Amendments, acts and bills.	Legislative, executive and judicial processes.	Constitutional, non-constitutional, judicial, quasi-judicial, administrative and other types of bodies.	Federal structure and local bodies. Their powers and functions.	Government policies and various governance issues like transparency, accountability and – governance	Committees and schemes.	Non-government issues, self-help groups and role of civil society	Vulnerability of our society and social sector issues and initiatives	International Relations -India and other countries, various Indian and international agreements, effects of other countries on		
GS - III	Various measures to boost Indian economy- planning, policies, management.	Government budgeting and issues related to budget.	Agriculture, animal husbandry and transport	Food security- measures to boost food security and food processing. Issues related to land- land reforms	Industries and infrastructure- re-their growth and investment model	Space and technology, IT space, robotics and computer	Disease, biotechnology and human welfare	Innovations, intellectual property, Awards, POI and other import aspects of S&T	Environment: government initiatives, various judgments, pollution, degradation and conservation efforts	Disaster & Management	Challenges to internal security, Various Security forces and agencies and their mandate. Cybersecurity: moneylaundering and its prevention.
GS - IV	Ethical issues related to family society, education, Corruption etc.	Ethics in public and private administrative	Issues	Related laws and rules	Governance/e-Governance	Ethics in international issues	Personalities and their	Other important topics			
Mis.											

POLITY

Cooperative Federalism

News Excerpt

In the wake of the COVID19, Union Finance Minister announced several packages for the welfare of the downtrodden. On this, opposition advised the Central government to practice cooperative federalism and at least clear the GST dues of states.

GS CONNECT											
SS	1	2	3	4	5	6	7	8	9	10	11
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Pre-Connect

- The term 'federation' is derived from a Latin word *foedus* which means 'treaty' or 'agreement'. Thus, a federation is a new state (political system) which is formed through a treaty or an agreement between the various units. The units of a federation are known by various names like states (as in US) or cantons (as in Switzerland) or provinces (as in Canada) or republics (as in Russia).
- The Constitution provides for a federal system of government in the country. The framers adopted the federal system due to two main reasons—the large size of the country and its socio-cultural diversity. They realised that the federal system not only ensures the efficient governance of the country but also reconciles national unity with

The key features or aspects of Cooperative Federalism are:

- ❖ Joint focus on the National Development Agenda by the Centre and the States; and
- ❖ Advocacy of State perspectives with Central Ministries.

These priorities ought to reflect the national objectives and foster cooperative federalism through structured support to States on a continuous basis.

1. Sarkaria Commission: The agitation for state autonomy led to the creation of Sarkaria Commission by the Centre to recommend changes in Centre-State relationship. The Commission submitted report in 1988.
2. The Administrative Reforms Commission (1969): The Administrative Reforms Commission (1969) made 22 recommendations to improve Centre-State relations. It ruled out any constitutional amendment and considered the existing provisions as sufficient to regulate federal tensions.
3. Rajamannar Commission, 1969: Tamil Nadu Government appointed this Commission to look into this aspect and it submitted report in 1971.
4. National Commission to review the Working of the Constitution (NCRWC): Many of which were a reiteration of Sarkaria recommendations.
5. Punchi Commission (2007): Centre constituted the Punchi Commission in 2007 to examine centre-state relations along with the possibility of giving sweeping powers to the centre for suo-moto deployment of Central forces in states and investigation of crimes affecting national security.

regional autonomy.

- The 101st Amendment Act of 2016 paved the way for the introduction of a new tax regime (i.e. goods and services tax - GST) in the country. The smooth and efficient administration of this tax requires co-operation and coordination between the centre and the states.
- In order to facilitate this consultation process, the amendment provided for the establishment of a Goods and Services Tax Council.
- The NITI Aayog has been mandated the task of evolving a shared vision of national development priorities, sectors and strategies with the active involvement of States.
- The NITI Aayog ought also to help states develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
- The aim is to progress from a stage when the Centre decided development policies to a truly

federal government wherein States are equal stakeholders in the planning process.

- In *Govt. of NCT of Delhi v. Union of India*, 2018 the Supreme Court gently tilted the balance of executive power in favour of the Government of the National Capital Territory *vis-à-vis* the Lieutenant Governor (and by extension, the Centre). The court's observations on cooperative federalism were stating the obvious considering members of both cabinets take an oath to uphold the Constitution.

Analytica

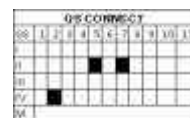
- Taxation powers is the contentious issue and the Central government has won most of the disputes purely due to express provisions in the Constitution.
- In the Goods and Services Tax (GST) scenario, States have foregone some taxation powers (octroi, entry tax, luxury and entertainment taxes, etc.) but have powers to levy taxes through panchayats and municipalities.
- Such powers can result in an anomalous situation of a transaction being taxed under GST laws and a local law, and this is yet to be tested in court. After the GST amendments to the Constitution, States have power to levy tax on sale of petrol, diesel, etc. and these would be revenues of the respective States.
- This brings us to another key dynamic that defines the Centre-State relationship — sharing of taxes. The southern States have been vocal about the false positives and negatives from tax sharing and this mechanism is largely subject to the recommendations of the Finance Commission (FC) and action by Parliament. State levies and State GST form part of a **State's revenue**. Under Article 269A(1), the GST Council — and not the FC — has the powers to make recommendations in relation to sharing of taxes from inter-State trade.
- This is important since States have a vote in the GST Council. However, Articles 270(1A) and 270(2) provide that taxes levied under the GST laws will be shared in the manner 'prescribed' in Article 270(2) — which takes us to the FC, and not the GST Council.
- The possible anomaly between roles and powers of the FC and the GST Council has not been tested but it may make sharing of these revenues subject matter of the FC and Parliament rather than the GST Council, where States have more power.
- **States don't merely seek parity with each other, historically States have also sought parity with the Centre (Sarkaria and Punchhi Commissions).**
- Recommendations of the FC are placed before Parliament and States have no role in the debate. There is no provision for an aggrieved State to challenge the FC report or seek its enforcement.
- If the Centre refuses to make allocations as per the GST Council, or if a State is aggrieved by the recommendations itself, an aggrieved State would have to litigate in the Supreme Court as it appears that the GST Council is yet to establish a mechanism for resolving differences in terms of Article 279A(11).

PEPPER IT WITH
Salient features of the GoI Act, 1935, The concept of Competitive Federalism, Finance Commission (FC), Article 243-I, Article 243-K

Fake News

News Excerpt

Fake news has not only turned out to be a curse for the common man, who find it difficult to distinguish facts from fiction, but also for law enforcement agencies, especially during the Covid-19 pandemic.



Pre-Connect

- Fake news is travelling much faster than the coronavirus in India. Even before the country reported its first case on 30 January, India's social media was rife with fake posts, wild rumours, conspiracy theories, doctored videos about the disease's origin,

its subsequent spread and possible remedies.

- Once the country started reporting more cases, a torrent of fake messages began populating all major social media platforms, particularly Facebook, WhatsApp, Twitter, TikTok and so on.
- Fake news particularly in social media can be put into five broad categories: content about causes, symptoms, and cures, spread of the virus, government documents and misrepresentation of comments, photos and videos of politicians, and conspiracy theories blaming certain country, groups or communities for the spread of virus.
- Out of 178 fact checks since the onset of COVID-19 in the country, as much as 35% of them were fake videos, 29% images and a similar percentage were doctored messages on range of issues such as fake diagnosis and treatment, falsified quotes by celebrities with their photos, false notifications and lockdown guidelines among other.
- In January, a doctored video surfaced about how China is bombing its own citizens in Wuhan. This was followed by a flurry of videos of people prescribing miracle cures, some faking infections and using hot water and alcohol to prevent to develop immunity to virus.
- Fake news syndrome has led individual countries to come out with appeals and messages to counter such fake news, with even the World Health Organisation (WHO) being compelled to brandish it as an “infodemic”, and appealed to people to believe in credible and scientific information.

Analytica

- The crisis of fake news is much more severe in India largely because of the country’s rapidly growing social media base and sloppy regulation of social media platforms.
- With as much as 376 million people using all kinds of social media platforms, India is on the radar of most social media companies with a rapidly growing internet base.
- Authorities have found repeatedly engaged in issuing clarifications to keep people away from not falling prey to such rumours and fake news.
- Compared to many countries, a large number of Indians are more susceptible to fake news and disinformation campaigns.
- Even the reports of social media companies such as Google, Facebook and other intermediary platforms in mid-February deciding to create an Information Trust Alliance (ITA) to tackle fake content.
- With the existing Information Technology (IT) Act, 2008 proving to be toothless to tackle fake content, the central and state governments have invoked the provisions of (Section 54) of the Disaster Management Act (DMA), 2005 to check the menace.
- A few states have imposed sedition laws to tackle the problem of fake news and violent attacks and stigmatisation of frontline health workers and paramedics.
- While hundreds of attackers have been arrested and several social media platforms have been issued with warnings, the fake news ecosystem surrounding the virus continue to flourish and significantly **impacts the country’s inter-community** relations along with its collective efforts against a life-threatening pandemic.

PEPPER WITH IT

Article 19: Right to freedom of speech and expression, Press Council of India, Development of Indian Press, Hindi Journalism Day.

Conclusion

To sum up, India has been simultaneously fighting two viruses; one real and the other being the fake one but equally lethal. Fake news and misinformation have created

numerous hurdles for governments at all levels; central, state and local, in their fight against the pandemic. To curb it the government, need to introduce stringent laws.

Project 39A

News Excerpt

Project 39A has released a study analysing trial court death penalty judgements from Madhya Pradesh, Maharashtra and Delhi during the period 2000-15.

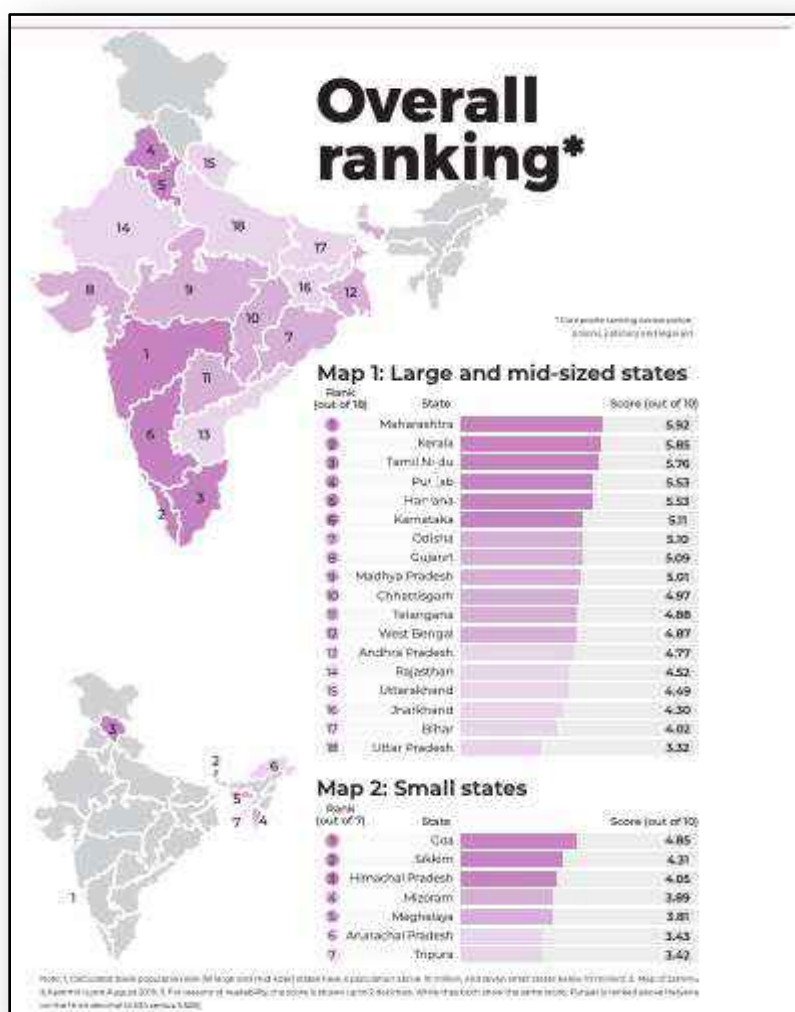
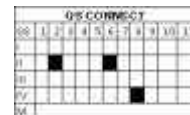
Pre-Connect

- Project 39A is inspired by Article 39-A of the Indian Constitution, a provision that furthers the intertwined values of equal justice and equal opportunity by removing economic and social barriers.
- These are constitutional values of immense importance given the manner in which multiple disparities intersect to exclude vast sections of our society from effectively assessing justice.
- Using empirical research to re-examine practices and policies in the criminal justice system,

Art.39A. Equal justice and free legal aid.—The State shall secure that the operation of the legal system promotes justice, on a basis of equal opportunity, and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities.

Project 39A aims to trigger new conversations on legal aid, torture, DNA forensics, mental health in prisons, and the death penalty.

- Under this project the National Law University, Delhi is committed to ensuring that the engagement with the criminal justice system is based on rigorous empirical work.
- The Legal Services Authorities Act (1987) has established a nation-wide network to provide free and competent legal aid to the poor and to organise Lok Adalat for promoting equal justice.
- Lok Adalat is a statutory forum for conciliatory settlement of legal disputes. It has been given the status of a civil court. Its awards are enforceable, binding



on the parties and final as no appeal lies before any court against them.

Analytica

- It is an oft-repeated truth that much of law-making in India lacks any real empirical basis and this is equally true for law and policy making in the criminal justice system.
- The dismal state and sometimes the absence of record-keeping in the police, prisons and courts along with multiple barriers to accessing records, data complicates criminal justice research in India.
- It is important that National Law University, Delhi utilise the resources, expertise and access to networks available to overcome these barriers and take these difficult conversations forward.
- Issues involving the criminal justice system need to be effectively communicated to audiences far beyond lawyers, judges and the bureaucracy.

National Legal Services Authority (NALSA)

Article 39A of the Constitution of India provides for free legal aid to the poor and weaker sections of the society and ensures justice for all. Articles 14 and 22(1) of the Constitution also make it obligatory for the State to ensure equality before law and a legal system which promotes justice on the basis of equal opportunity to all.

In the year 1987, the Legal Services Authorities Act was enacted by the Parliament which came into force in 1995 to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society on the basis of equal opportunity.

The NALSA has been constituted under the Legal Services Authorities Act, 1987 to monitor and evaluate implementation of legal aid programmes and to lay down policies and principles for making legal services available under the Act.

State Legal Services Authority

In every State, a State Legal Services Authority and in every High Court, a High Court Legal Services Committee have been constituted.

The District Legal Services Authorities, Taluk Legal Services Committees have been constituted in the Districts and most of the Taluks to give effect to the policies and directions of the NALSA and to provide free legal services to the people and conduct Lok Adalats in the State.

- It is critical that the project can clearly convey that everyone has a stake in the health of the criminal justice system and that its fault lines must concern all.
- Researching the criminal justice system often forces the researchers to confront harsh individual and systemic realities and issues of legal representation and **intervention also lie at the core of Project 39A's mandate.**
- Being acutely aware that credible research rides on its independence, robust ethical frameworks guide the separation of research and representation efforts.

Conclusion

India's per capita expenditure on free legal aid – which 80% of the population is eligible for – was just 75 paise per annum in the year 2017-2018. This was revealed in a new study on the justice delivery system in India. **Moreover, there isn't a single state which has used the full budget allocated by the National Legal Services Authority (NALSA).** The main reason behind it is the unawareness of the masses.

PEPPER IT WITH
Salient features of DPSP, Juvenile
Justice, Judicial Officer, Judicial
Service.

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- **Changes in the manner in which labour laws operate in a State may require the Centre's assent.**
- One hopes the Centre, which is pursuing a labour reform agenda through consolidated codes for wages, industrial relations and occupational safety, health and working conditions, would not readily agree to wholesale exemptions from legal safeguards and protections the law now affords to workers.
- The most egregious aspect of the country's response to the pandemic was its inability to protect the most vulnerable sections and its vast underclass of labourers from its impact.
- The emphasis in the initial phase was on dealing with the health crisis, even when the consequence was the creation of an economic crisis.
- While the country watches with horror the continuance of the collective misery of migrant workers well into the third spell of the national lockdown, the attitude of the ruling class towards labour remains one of utter apathy, bordering on contempt.

What the Constitution says!

FUNDAMENTAL RIGHTS

Article 19: Protection of certain rights regarding freedom of speech, etc.-

(1) All citizens shall have the right-

(c) to form associations or unions;

Article 23: Prohibition of traffic in human beings and forced labour- (1) Traffic in human beings and begar and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law.

Article 24: Prohibition of employment of children in factories, etc.- No child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment.

DIRECTIVE PRINCIPLES OF STATE POLICY

Article 39: Certain principles of policy to be followed by the State- The State shall, in particular, direct its policy towards securing-

(a) that the citizens, men and women equally, have the right to an adequate means of livelihood;

(d) that there is equal pay for equal work for both men and women;

(e) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength;

(f) that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment.

Article 41: Right to work, to education and to public assistance in certain cases.- The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.

Article 42: Provision for just and humane conditions of work and maternity relief- The State shall make provision for securing just and humane conditions of work and for maternity relief.

Article 43: Living wage, etc., for workers.- The State shall endeavour to secure, by suitable legislation or economic organisation or in any other way, to all workers, agricultural, industrial or otherwise, work, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities and, in particular, the State shall endeavour to promote cottage industries on an individual or co-operative basis in rural areas.

Article 43-A: Participation of workers in management of industries- The State shall take steps, by suitable legislation or in any other way, to secure the participation of workers in the management of undertakings, establishments or other organisations engaged in any industry.

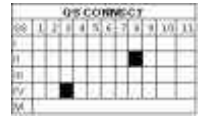
Conclusion

Working people in India have been subjected to inhuman sufferings owing to loss of jobs, loss of wages and eviction by landlords amid the lockdown.

Migrants in own home

News Excerpt

According to a Survey report, 96% migrant workers did not get rations from the government while the 90% did not receive wages during lockdown.



Highlights

- The survey was conducted by the Stranded Workers Action Network (SWAN).
- A survey of 11,159 migrant workers stranded in various States found that between April 8 and April 13, more than 90% did not receive rations from the government. Close to 90% of those surveyed did not get paid by their employers. From March 27 to April 13, 70% of the surveyed workers had only less than ₹200 left with them.
- The nationwide lockdown announced on March 24 at short notice has caused immense distress to migrant workers around the country.
- Thousands of migrant workers are walking across India in a desperate attempt to reunite with their families in their native places.
- Questions are being raised about their welfare and the lack of legal protection for their rights.
- Those in the field of labour welfare have recalled a 1979 law to regulate the employment and working conditions of inter-State migrants.
- As part of reforming labour law, a Bill has been introduced in Parliament called the Occupational Safety, Health and Working Conditions Code of 2019. The proposed code seeks to merge 13 labour laws into a single piece of legislation.
- The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act of 1979, is one of them. But activists fear that specific safeguards given to migrant workers may be lost as a result of this consolidation.
- In her second tranche of COVID-19 relief package announcements, Finance Minister Nirmala Sitharaman announced the steps taken by the government for migrants and farmers during the national lockdown, including free ration for stranded workers.
- Acknowledging the significance of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) during the pandemic, she said it had helped provide jobs to returning workers in rural areas and advised States to continue the process in the monsoon season as well.
- Migrant workers, the urban poor and small farmers are the targeted beneficiaries of these

Among steps announced in the Coronavirus Package to ease credit for small farmers, the government said that the National Bank for Agriculture and Rural Development (NABARD) will extend an additional refinance support of ₹30,000 crore for crop loan requirement of rural cooperative banks and regional rural banks.

May 1 is marked as International Labour Day, also referred as May Day. Labour Day has its origins in the labour union movement in the United States. During industrialization in beginning of the 19th Century, the industrialists used to exploit the labour class and made them work up to 15 hours a day. The workers rose against this exploitation and demanded paid leaves, proper wages and breaks for the workforce. The eight-hour day labour movement advocated eight hours for work, eight hours for recreation, and eight hours for rest. The Labour Day annually celebrates the achievements of the workers.

In India, the first Labour day was celebrated in the year 1923. It was the Labour Kisan Party who had organised the May Day celebrations in Chennai (then Madras).

announcements.

Analytica

- The recent Periodic Labour Force Survey conducted in 2017 by the National Sample Survey Office of the Ministry of Statistics and Programme Implementation, had estimated that there were around 1,49,53,750 urban workers who had vulnerable jobs.
- These workers included helpers in a household enterprise and who did not receive a regular salary and casual labourers who received daily wages; besides this, the number considers only those in bottom 50% of the wealth pyramid in 2017-18, based on their monthly per capita expenditure.
- This number extended to an estimated 2.5 crore people if those who had salaried jobs but did not receive any paid leave and other benefits were included. Migrant workers numbered more than 81 lakh people among this segment.
- Once the national lockdown was announced, it was this segment of the population which was hurt the most as many of them lost their jobs (the Centre for Monitoring Indian Economy, or CMIE, estimates unemployment to have reached 24.2%, with urban employment being 26%) and had barely any income to tide over the lockdown.
- Many migrant workers sought to return home to their home towns, but the absence of transport prevented them from doing so.
- State governments were supposed to set up relief camps and shelters providing food and other amenities for these workers, but implementation was skewed (69% of the overall shelters and camps were situated only in Kerala).
- With increasing distress, many migrant workers took recourse to their own means of transport to go home — many had no other option but to walk long distances — before the central government finally notified the start of services of **“Shramik trains”** to transport them.
- The Centre has also said that the One Nation One Ration Card scheme will be enhanced by assuring national portability of 83% by August 2020 and 100% by March 2021.
- Besides these steps for immediate relief to the workers, the government has also announced that it will launch a scheme under the Pradhan Mantri Awas Yojana (PMAY) to convert government funded housing in the cities into affordable rental housing complexes under PPP mode through a concessionaire.
- A special credit facility with liquidity of up to ₹5,000 crore has been announced for street vendors through a special scheme that will facilitate easy credit and will be launched in a month.

The Interstate Migrant Workmen Act, 1979 is intended to regulate the employment of inter-state migrant workmen and to provide for their conditions of service. It applies to every establishment, and the contractor, who employ five or more inter-state of Pass-Book to every inter-state migrant workmen with full details, payment of displacement allowance equivalent to 50% of monthly wages or Rs.75/- whichever is higher, payment of journey allowance including payment of wage during of the period of journey, suitable residential accommodation, medical facilities and protective clothing, payment of wages, equal pay for equal work irrespective of sex etc. The main responsibility for enforcement of the provision of the Act lies with the Central and the State Governments/Union Territories in the establishment falling in the Central and State Sphere respectively.

“Charan Paduka” campaign has been launched by the Madhya Pradesh for the migrant labourers moving through the state. Under this campaign, shoes and slippers will be offered to those labourers going barefoot in order to reduce their pain.

PEPPER IT WITH
One Nation One Ration Card Scheme, Schedule 7, Union List, Entry number 81: Inter-State Migration, Inter-State

Conclusion

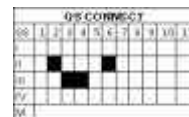
The government told the Supreme Court in late March that arrangements had been made to provide temporary shelters with food for migrant workers and as of then, none of them was on

the road, just days after the lockdown had triggered an exodus of people to their native places. States such as Madhya Pradesh and Uttar Pradesh are also gearing up to facilitate their return. These steps are welcome. Allowing migrant travel in a safe way by train that provides for the necessary physical distancing is the least that the government can do.

Contract Farming

News Excerpt

Major agri-processing companies ITC Limited, Mahindra Agri Solution, Shriram and German wholesale retailer Metro Cash and Carry expect significant gains in supply-chain efficiency from the **government's decision to enable farmers** undertake contract farming.



Highlights

- The Odisha government has promulgated an ordinance allowing investors and farmers to enter into agreement for contract farming in view of the continuing uncertainties due to the pandemic.
- According to the Odisha government, the ordinance was aimed at facilitating both farmers and sponsors to develop mutually beneficial and efficient contract farming system.
- It is argued that the new system will lead to improved production and marketing of agricultural produce and livestock while **promoting farmers' interest**.
- The agreement will be entered into between the contract farming sponsor, who offers to participate in any component or entire value chain including preproduction, and the contract farming producer (farmers), who agree to produce the crop or rear the livestock.
- The government has made it clear that notwithstanding anything contained in the agreement, no title, rights, ownership or possession of land or premises or other such property will be transferred or alienated or vest in the sponsor or its successor or its agent.
- **The government will constitute a "Contract Farming and Services (Promotion and Facilitation) Committee" to review the performance of the contract farming and to make suggestions to the government for its promotion and efficient performance.**

What does Contract Farming mean?

The Contract Farming is a written agreement between a farmer and a buyer for producing an agricultural produce/product or rearing livestock. It covers a whole range of activities in the entire agri-value chain — from pre-production to production to post-production. No genetically modified crops are permitted. Price, quantity and the delivery schedule are fixed during negotiations between the two parties.

Normally the contract farming covers over 110 items of agricultural produce, requires every purchaser to register himself or herself with a designated officer. Likewise, every agreement has to be recorded with the officer concerned. There are two types of contracts — one for production **support (such as inputs' supply)** and purchase and another, only for buying.

Analytica

- The Contract Farming will help increase income for farmers, particularly the small and marginal ones, as they will get better access to good quality inputs and better farm practices, executives said. Farmers with less than two hectares of land account for 86.2% of all farmers in India, but own just 47.3% of the crop area.
- A deeper engagement between the farmers and food processors or retailers helps in guiding the farmers align the crop varieties, quality, farm management practices etc. with what the market wants.

Agriculture is a state subject, i.e. it forms a part of the state list of our Constitution, which essentially means that states are supposed to address all the issues related to agriculture. Over the years, agriculture has definitely emerged as more than a state subject.

- The new legal framework will lay foundation to transform Indian agriculture leading to better incomes for the farmers and more able supply chains for the businesses.
- It will reduce the marketing risk for farmers due to pre-agreed prices and market assurance.
- Currently there was a fear that farmer's interest may be compromised as they are smaller **entities and can't afford to bear buyer** reneging from contract.
- Long-term contracts with farmers will justify the higher investments made by companies on technology and farms.
- The contracts will have terms relating to traceability and that is possible only with contract farming, which will also boost exports.
- The Contract Farming will provide a predictable income stream to the farmer.
- For wholesale retailers and companies, direct contract with thousands of farmers will ensure better control on the quality of the end products.
- Farmers will not have to deal with middlemen.
- The companies will implement best practices on usage of seeds and farming techniques with a focus on technology to bring in efficiencies.
- The company currently procures 2000 tonnes of fruits and vegetables per month with approximately 60% of those being vegetables.
- Contract farming is allowed in most states like Gujarat, Maharashtra, Karnataka, Tamil Nadu, Haryana, Uttarakhand, Madhya Pradesh and West Bengal under the amended APMC Act and companies and agencies have to seek permission or license in each state separately.

How have the Laws of the Land dealt with the concept of the Contract Farming?

The Central Government, as early as in 2003, formulated a model law on the Agricultural Produce Marketing Committee, **which provided for "direct sale of farm produce to contract farming sponsors."** Three years later, the Maharashtra government amended the Agricultural Marketing (Development and Regulation) Act, 1963, to introduce norms on contract farming agreements. In 2013, Punjab enacted a separate law which apparently due to political reasons, has not yet been put into effect.

PEPPER IT WITH

Article 123, Article 213, MGNAREGA, Feminisation of Indian Agriculture, Women Farmers, Labour Bureau, Ministry of Labour and Employment, Farm Subsidies

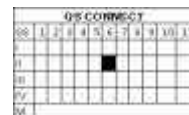
Conclusion

There is a general view among the legal experts that under the given legal provisions, there is very little scope in sorting out disputes over formal contract farming agreements. Small and marginal farmers may not prefer to go for litigation for reasons of affordability.

UMANG App

News Excerpt

Umang app users can now check the weather forecast of their city using the app. The Indian Meteorological Department has added its weather services to Umang app.



Pre-Connect

- Umang, also known as Unified Mobile Application for New-age Governance, is an all-in-one app launched by the government to encourage more people to adopt digital payment transactions in the country.
- The UMANG allows a user to view/access multiple customer-centric services like Employees' Provident Fund (EPF), PAN, Aadhaar, digi-locker, gas booking, mobile bill payment, electricity bill payment, etc. through one app.
- The app is available in 10 languages other than English and Urdu.
- This platform provides people access to more than 100 services, from both the state and central government.

- The app can be downloaded on Android, iOS and Windows phones for free.
- Umang has been developed by the National e-Governance Division (NeGD) and the Ministry of Electronics and Information Technology.
- This e-governance application can also be used from other channels such as through the web, SMS, or IVR.

Analytica

- With Umang, the government aims to promote e-governance and adopt a new-age governance policy as part of Digital India initiative.
- A big utility of the app is the fact that you can use it for EPF related services.
- One such thing that you can do using the app is the get details of the deposits made towards your EPF during your employment with different employers.
- Users can avail benefits of flagship schemes like Pradhan Mantri Awas Yojana, Ayushman Bharat, Swachh Bharat and more.
- **Users can mark services as 'favourite'** as per their choice for easier access.
- Users can access e-governance services from central and state governments including local civic bodies.
- The services are categorised into three: All, Central and State. One can also filter out these services state-wise.
- The government integrated Bharat BillPay Payment System with the app. This enables one to pay bills for water, electricity, DTH, mobile and landline.
- The India Meteorological Department (IMD) also added its offerings to the wide variety of services offered by the UMANG app. However, the app will not be giving any real time notifications or updates on extreme weather events.

Challenges before the Digital Governance

- ❖ There are many challenges in implementing Digital-governance model in India as well as at global scale.
- ❖ The actual challenge is how to develop and withstand successful projects and deliver state of the art e-services to inhabitants.
- ❖ Unfortunately, it is not as easy to develop secure in-service delivery mechanism.
- ❖ Efficacious e-governance initiatives can never be taken in hurriedness.
- ❖ With reference to India, e-Governance should enable seamless access to information and seamless flow of information across the state and central government.

PEPPER IT WITH
E-governance, Digital India

Security Challenges before the Digital Governance

- **Disclosure of Information:** In case of the compromised system, the undesirable information disclosure can take place very easily.
- **Denial of Service:** In this technique, attacker can perform Denial of Service (DoS) attack by flooding the E-Governance server with request to consume all of its resources so as to crash down the mechanism.
- **Spoofing:** In this practice, the attacker attempts to gain the access of the E-Governance system by using fallacious identity either by stealth or by using false IP address. Once the access is gained, the assailant abuses the E-Governance system by elevation of the privileges.
- **Repudiation:** Even the attacker can mount refutation attack during the E-Governance transaction, which is the ability of the user to reject its performed transaction.
- **Tampering of system:** As soon as the system is compromised and privileges are raised, the classified information of the E-Governance mechanism becomes very much susceptible to illegal adjustments.
- **Elevation of privilege:** Once the data is compromised; the attacker pretending to be a low-profile user attempts to escalate to the high profiles so as to access its privileges to initiate further damage to the system.
- **Cyber Crimes:** Advancement of science and technology increase the rate of the cybercrime. It is a threat to the transactions accomplished between the Government and its Citizenry within the E-Governance methodology.

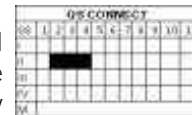
Conclusion

Umang app is a significant step towards e-governance and good governance but the government need to ensure the security of data and the privacy of the user.

Delimitation Commission

News Excerpt

The Lok Sabha Speaker Om Birla has nominated 15 MPs from Jammu and Kashmir, Assam, Manipur, Nagaland and Arunachal Pradesh to assist the Delimitation Commission in redrawing the Lok Sabha and the Assembly constituencies of the northeastern States and the Union Territory.



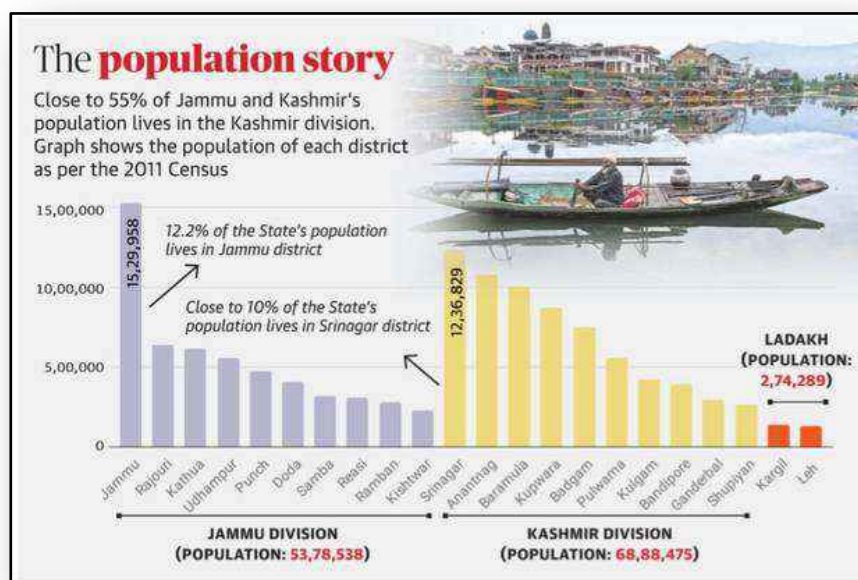
Pre-Connect

- Delimitation literally means the act or process of fixing limits or boundaries of territorial constituencies in a country or a province having a legislative body.
- The Delimitation Commission in India is a high-power body whose orders have the force of law and cannot be called in question before any court. These orders come into force on a date to be specified by the President of India in this behalf.
- Under Article 82, after every census, a readjustment is to be made in (a) allocation of seats in the Lok Sabha to the states, and (b) division of each state into territorial constituencies.
- Parliament is empowered to determine the authority and the manner in which it is to be made. Accordingly, the Parliament has enacted the Delimitation Commission Acts in 1952, 1962, 1972 and 2002 for this purpose.
- The J&K Assembly was dissolved in November 2018 and the region has been Centre's rule since June 2018.**

PEPPER IT WITH
Parliament, Legislative Assembly,
Art. 324, Cooperative Federalism

Highlights

- Jammu and Kashmir at present has no Legislative Assembly. It is a Union Territory with a provision of a legislature.
- The newly created Union Territory of Jammu and Kashmir will be the only one in the country to undergo a delimitation exercise based on the population figures recorded in the 2011 census.
- The commission will delimit the constituencies of Jammu and Kashmir in accordance with the provisions of the Jammu and Kashmir Reorganisation Act, and of Assam, Arunachal Pradesh, Manipur and Nagaland in accordance with the provisions of the Delimitation Act, 2002.



- Reorganisation Act, and of Assam, Arunachal Pradesh, Manipur and Nagaland in accordance with the provisions of the Delimitation Act, 2002.
- The delimitation exercise has been set in motion as the J&K administration also rolled out the census process, which is likely to take place from June.
- According to the Jammu and Kashmir Reorganisation Act, 2019, the number of seats in the Legislative Assembly of the UT of J&K would be increased from 107 to 114. The Act also

specifies that delimitation will be based on the 2011 census till 2026.

- It remains to be seen whether the 2011 census or the 2021 census report will be the basis of the delimitation, which aims to create seven more constituencies as envisaged by the J&K Reorganisation Act passed on August 5, 2019.
- At present, the Kashmir region has 42 seats and the Jammu region 37 seats on the basis of population ratio.
- People of the Jammu and Kashmir want that the area, population and topography be kept in mind while carrying out the exercise.
- Section 63 was introduced in the J&K Reorganisation Act so that delimitation exercise can be conducted smoothly without overlapping with other provisions of Delimitation Commission Act, 2002.
- The above mentioned is a saving clause and since J&K is a UT, it now has constitutional safeguards. The provision did not require any separate legislation as it was incorporated in the primary Act.

Section 63 of the J&K Reorganisation Act (Special provisions as to readjustment of Assembly and Parliamentary Constituencies) says that **“until the relevant figures for the first census taken after the year 2026 have been published,” it shall not be necessary to readjust the constituencies and any reference to the “latest census figures” in shall be construed as a reference to the 2011 census figures.**

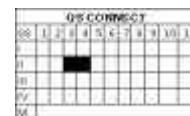
Conclusion

The total population of the Jammu and Kashmir would be divided over the 114 seats to get an average number of electors per constituency. The boundaries of the constituencies would then be drawn while ensuring that administrative units are not split as far as possible.

State Election Commission

News Excerpt

In a swift development, the Andhra Pradesh State Election Commission (APSEC) cancelled its circular reinstating Nimmagadda Ramesh Kumar as State Election Commissioner (SEC) and the government appointed G Vani Mohan, commissioner of cooperation, as the new secretary to SEC.



Pre-Connect

- The tussle between the State government and N. Ramesh Kumar over the AP Panchayat Raj (Second Amendment) Ordinance, 2020 reached the Supreme Court with the former filing a Special Leave Petition against the High Court (HC) judgment in the matter.
- The state election commissioner, though appointed by the governor of the state, can be removed only by the President.
- Governor appoints the state election commissioner and determines his conditions of service and tenure of office. However, the state election commissioner can be removed only in like manner and on the like grounds as a judge of a high court.
- The Chief Minister advises the governor with regard to the appointment of state election commissioner.

Article 243-K: State Election Commission

The superintendence, direction and control of the preparation of electoral rolls and the conduct of all elections to the panchayats shall be vested in the state election commission. It consists of a state election commissioner to be appointed by the governor. His conditions of service and tenure of office shall also be determined by the governor. He shall not be removed from the office except in the manner and on the grounds prescribed for the removal of a judge of the state high court. His conditions of service shall not be varied to his disadvantage after his appointment. The state legislature may make provision with respect to all matters relating to elections to the panchayats.

PEPPER IT WITH
Art. 243-I, Art. 324, Art. 280, Art. 123, Art. 213

SOCIAL ISSUES, SCHEMES, REPORTS AND INDICES

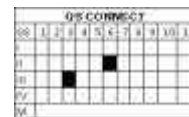
Pradhan Mantri MatsyaSampadaYojna

News Excerpt

Centre has given its approval for implementation of Pradhan Mantri MatsyaSampadaYojna (PMMSY).

Pre-Connect

- The Finance Minister reported Rs 20,000 Crore Scheme, named Pradhan Mantri MatsyaSampada Yojana.
- It is to address basic framework holes for the fisheries area. It will be spent on exercises in marine, inland fisheries and aquaculture. In any case, Rs 9000 crore will be utilized to assemble foundation, such as angling harbours and cold chain.
- Interim Budget had created a separate ministry for animal husbandry, livestock.
- CSS including the Integrated Development and Management of Fisheries and Aquaculture Infrastructure Development Fund are made available to devise a framework of development, management, and conservation of marine (and inland) fisheries and to increase the exports by Rs. 1 lakh crore in FY25.



Rs 20,000 crores for Fishermen through Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- Critical gaps in fisheries value chain
- Government will launch the PMMSY for integrated, sustainable, inclusive development of marine and inland fisheries.
- Rs 11,000 Cr for activities in Marine, Inland fisheries and Aquaculture
- Rs. 9000 Cr for Infrastructure - Fishing Harbours, Cold chain, Markets etc.
- Cage Culture, Seaweed farming, Ornamental Fisheries as well as New Fishing Vessels, Traceability, Laboratory Network etc. will be key activities.
- Provisions of Ban Period Support to fishermen (during the period fishing is not permitted), Personal & Boat Insurance
- Will lead to Additional Fish Production of 70 lakh tonnes over 5 years.
- Employment to over 55 lakh persons; double exports to Rs 1,00,000 Cr.
- Focus on Islands, Himalayan States, North-east and Aspirational Districts.



Objective of the Scheme

- PMMSY will improve the current framework of the chain from ranch entryway to retail outlet.
- It will expand the development of food preparing part.
- It will build GDP, Employment and venture.
- This Scheme helps in decreasing the gigantic wastage of horticulture items.
- It will help in giving better costs to ranchers and twofold their salary.
- Saddling of fisheries potential in an economical, capable, comprehensive and evenhanded way.
- Improving fish creation and efficiency through development, heightening, broadening and beneficial use of land and water.
- Modernizing and reinforcing of meriting chain – post-reap the executives and quality improvement.
- Multiplying fishers and fish ranchers earnings and age of work.
- Improving commitment to Agriculture GVA and fares.

Blue economy, which consists of economic activities dependent on marine resources, comprises 4.1% of **India's economy**. Fisheries, deep sea mining, and offshore oil and gas make up a large **section of India's blue economy**.

PEPPER IT WITH
Coastal Economic Zones (CEZs), Blue Bonds and Exclusive Economic Zone (EEZ)

- Social, physical and financial security for fishers and fish ranchers.
- Active fisheries management and administrative structure.

Benefits Of Pradhan Mantri Matsya Sampada Yojana

- ✓ The target of the plan is to enhance or increment horticulture, modernize handling and abatement agrarian waste and to use the potential in the fishery area.
- ✓ The administration proposed PMMSY to build up a powerful fishery board structure and check holes in the worth chain.
- ✓ **Government has clarified that 'Blue Revolution' or 'Neeli Kranti' can possibly achieve the primary spot on the planet in fish creation. It incorporates MoFPI's plans, e.g. Food Parks, Food Safety and Infrastructure.**

Beneficiaries Of Matsya Sampada Yojana

- Fishers
- The Fish farmers
- Fish workers
- Fish vendors
- SCs/STs/Women/Differently abled persons
- Fisheries cooperatives/Federations
- FPO
- Fisheries Development Corporations.
- Self Help Groups (SHGs)/Joint Liability Groups (JLGs)
- Individual Entrepreneurs.

Analytica

Present Situation of Fisheries sector

- India stands at 2nd largest exporter of Fisheries in the world with Annual Growth Rate of this sector at 10.8 per cent and Average Annual Growth Rate of Fish Production is 7.53 per cent.
- At present India has 22 lakhs hectares of lakes, 31 lakhs hectares of the reservoir, nearly 8000 km of the seashore and 11.19 lakh hectare of brackish water for fish production in the Fisheries sector.
- The sector is presently faced with problems of excess fishing capacity, low catch per unit effort, wide income disparities among the sectors of the fishing community and resultant socio-economic conflict.
- The stagnant sea production warrants the need for expanding the aquaculture sector to meet the requirements of the growing population.

Impact of the PMMSY

- Help in enhancing fish production from 137.58 lakh metric tons (2018-19) to 220 lakh metric tons by 2024-25.
- Sustain average annual growth of about 9% in fish production.
- Help in boosting an increase in the contribution of GVA of the fisheries sector to the

Blue Revolution

Blue Revolution, the Neel Kranti Mission has the vision to achieve economic prosperity of the country and fish farmers as well as contribute towards food and nutritional security through full potential utilization of water resources for fisheries development in a sustainable manner, keeping in view the bio-security and environmental concerns.

Objectives:

- ❖ To fully tap the total fish potential of the country both inland and marine sector and triple the production by 2020.
- ❖ To transform the fisheries sector as a modern industry with special focus on new technologies and processes.
- ❖ To double the income of the fishers and fish farmers with special focus on increasing productivity and better marketing postharvest infrastructure including e-commerce and other technologies and global best innovations.
- ❖ To ensure inclusive participation of the fishers and fish farmers in the income enhancement.
- ❖ To triple the export earnings by 2020 with focus on benefits flow to the fishers and fish farmers including through institutional mechanisms in the cooperative, producer companies and other structures.
- ❖ To enhance food and nutritional security of the country.

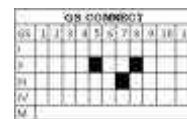
Agriculture GVA from 7.28% in 2018-19 to about 9% by 2024-25.

- Double the export earnings from Rs.46,589 crores (2018-19) to about Rs.1,00,000 crores by 2024-25.
- Improve the productivity in aquaculture from the present national average of 3 tonnes to about 5 tonnes per hectare.
- Decrease the post-harvest losses from the reported 20-25% to about 10%.
- Help in the improvement of domestic fish consumption from about 5-6 kg to about 12 kg per capita.
- Creation of about 55 lakh direct and indirect employment possibilities in the fisheries sector along with the supply and value chain.

Vaccine Action Programme

News Excerpt

Recently, Indian and the U.S. plan to work together on vaccine research and testing for COVID-19.



Pre-Connect

- Along with this the US government, through its aid agency USAID, has announced a grant of \$2.9 million to India to help it fight the coronavirus pandemic.
- The US government, through USAID, the Centers for Disease Control and Prevention (CDC), and other relevant agencies, is working closely with India to support the country's response to the pandemic.
- The US Agency for International Development (USAID) is one of the leading aid agencies globally.
- The U.S. Centre for Disease Control and Prevention said it would separately fund the **Government of India \$3.6 million to support “prevention, preparedness, and response”** activities in India, in collaboration with and concurrence from the GoI.
- U.S has already announced to donate 200 ventilators to India as a part of efforts to strengthen bilateral cooperation in the fight against the COVID19.

About Indo- U.S Vaccine Action Program

- The Indo-U.S. Vaccine Action Program (VAP) is a bilateral program, which supports a broad spectrum of activities relating to immunization and vaccine related research.
- The program was designed to encompass laboratory-based research, epidemiological studies, field trials, vaccine quality control, and delivery of vaccines.
- VAP is a 33-year collaboration between the U.S. National Institutes of Health, the Indian Department of Biotechnology (DBT) and the Indian Council of Medical Research (ICMR) along with other partners.

PEPPER IT WITH
USAID, Centers for Disease
Control and Prevention (CDC)

Analytica

How India will play a major role in a Covid-19 vaccine?

- ✓ The two countries have run an internationally recognized joint vaccine development programme for more than three decades. They have worked on stopping dengue, enteric diseases, influenza and TB in their tracks. Trials of a dengue vaccine are planned in the near future.
- ✓ India is among the largest manufacturer of generic drugs and vaccines in the world.
- ✓ It is home to major vaccine makers and a host of smaller ones, making doses against polio, meningitis, pneumonia, rotavirus, BCG, measles, mumps and rubella, among other diseases.
- ✓ Indian firms are developing vaccines against the virus that causes COVID19. One of them is Serum Institute of India, the world's largest vaccine maker by number of doses produced and sold globally. The company makes 1.5 billion doses every year, from Pune. (It has two other small plants in the Netherlands and the Czech Republic.)

UNICEF Report: Lost at Home

News Excerpt

Recently, Lost at Home report has been released by United Nations Children's Funds (UNICEF).

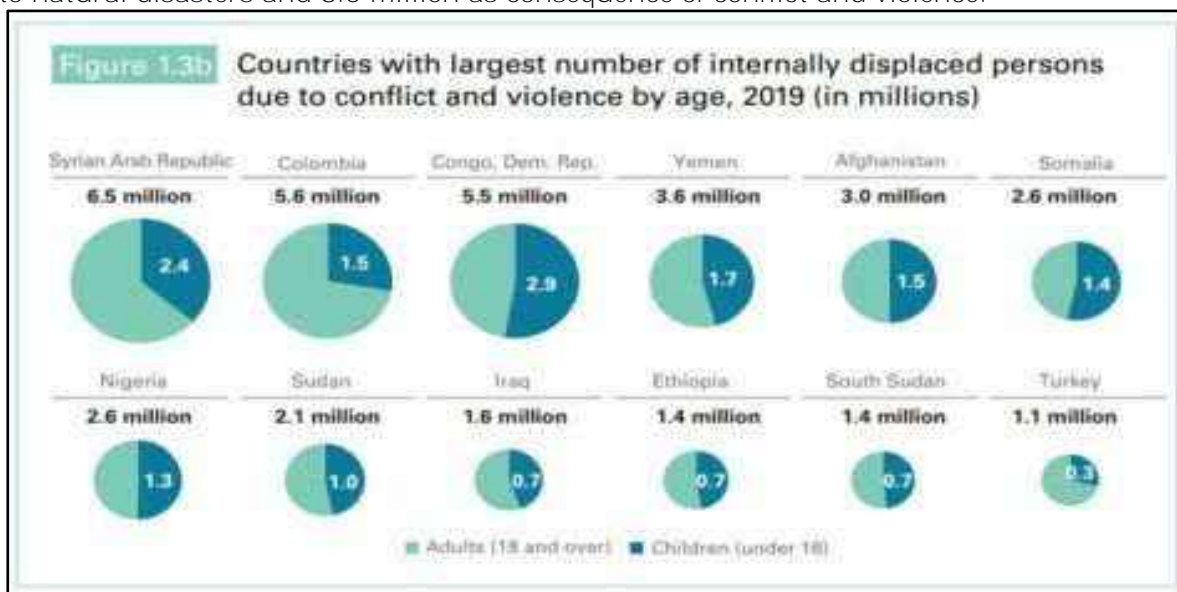
Pre-Connect

- Report presents the scale and scope of the internal displacement of children and their families around the world.
- Globally, displaced children persistently lack access to basic services.
- They are vulnerable to abuse, violence and exploitation as social norms break down and protective services are no longer available.
- Often their education is disrupted by delaying or entirely interrupting their learning.

Key Finding of the Report

World Wide Scenario

- Almost 33 million new displacements were recorded in 2019 — around 25 million were due to natural disasters and 8.5 million as consequence of conflict and violence.



- There were 12 million new displacements involving children, including around 3.8 million of them caused by conflict and violence, and 8.2 million due to disasters linked mostly to weather-related events.

Asia Scenario

- Natural disasters resulted in more new displacements than conflict and violence. Almost 10 million new displacements in 2019 were recorded in East Asia and the Pacific (39 %) — and almost the same number in South Asia (9.5 million).
- India, Philippines, Bangladesh and China all suffered from natural disasters leading to displacement in the millions, which accounted for 69% of global disaster-induced displacements.
- The Philippines accounted for 4.27 million new internal displacements due to natural disasters, conflict and violence, Bangladesh 4.08 million and China 4.03 million.

India Scenario

Internal displacements in 2019 stood at 5,037,000 - including 5,018,000 due to natural disasters and 19,000 because of conflict and violence.

COVID -19 Scenarios

- About 19 million children were displaced within their own countries due to conflict and violence in 2019, more than in any other year, making them among the most vulnerable to the global spread of COVID-19
- Forced out of their homes and communities, these children are among the most vulnerable in the world. The ongoing COVID-19 pandemic stands to bring even more harm and uncertainty to their lives
- When any type of crises emerges, these children are especially vulnerable.

Way Forward

Political will needed to protect and care for internally displaced children and their families. We have the chance to embrace a shared responsibility to invest in uprooted children and the host communities where we will build new homes for them.

Prime Minister Research Fellowship Scheme

News Excerpt

Recently, The HRD Ministry **announced amendments** in the Prime Minister's Research Fellowship (PMRF) scheme.

Pre-Connect

About Prime Minister Research Fellowship Scheme

- The institutes which can offer PMRF include all the IITs, all the IISERs, Indian Institute of Science, Bengaluru and some of the top Central Universities/NITs that offer science and/or technology degrees.
- The Scheme has been designed for improving the quality of research in various higher educational institutions in the country.
- With attractive fellowships, the scheme seeks to attract the best talent into research thereby realizing the vision of development through innovation.
- The candidates will be selected through a rigorous selection process and their performance will be reviewed suitably through a national convention.

Key Amendments

- Reduction in the required GATE score and introduction of a lateral entry option to attract more students.
- Most of the seats under the fancied scheme, under which 1000 seats were created, have been going vacant every year. The HRD ministry now hopes the changed rules would ensure that more seats get filled up.
- To boost research in the country various amendments have been carried out. The students from any recognised institute or university (other than IISc, IITs, NITs, IISERs, IIST and IIITs), the requirement of GATE Score is reduced to 650 from 750 apart from minimum CGPA of 8 or equivalent.
- There will be two channels of entries, one direct entry and other lateral entry. In lateral entry, the students, who are pursuing Ph.D in PMRF granting institutions (like IITs and NITs) can also apply to become fellow under the scheme.
- **HRD Ministry is creating a dedicated 'Research and Innovation Division.** The division will be headed by a director who will be coordinating research work of various institutions coming under the HRD Ministry.



Stringency Index

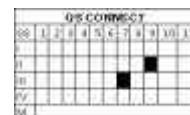
News Excerpt

A Stringency Index created by Oxford University shows how strict a **country's** measures were and at what stage of the spread it enforced these. India imposed its strictest measures much earlier than others.

Pre-Connect

What is Stringency Index?

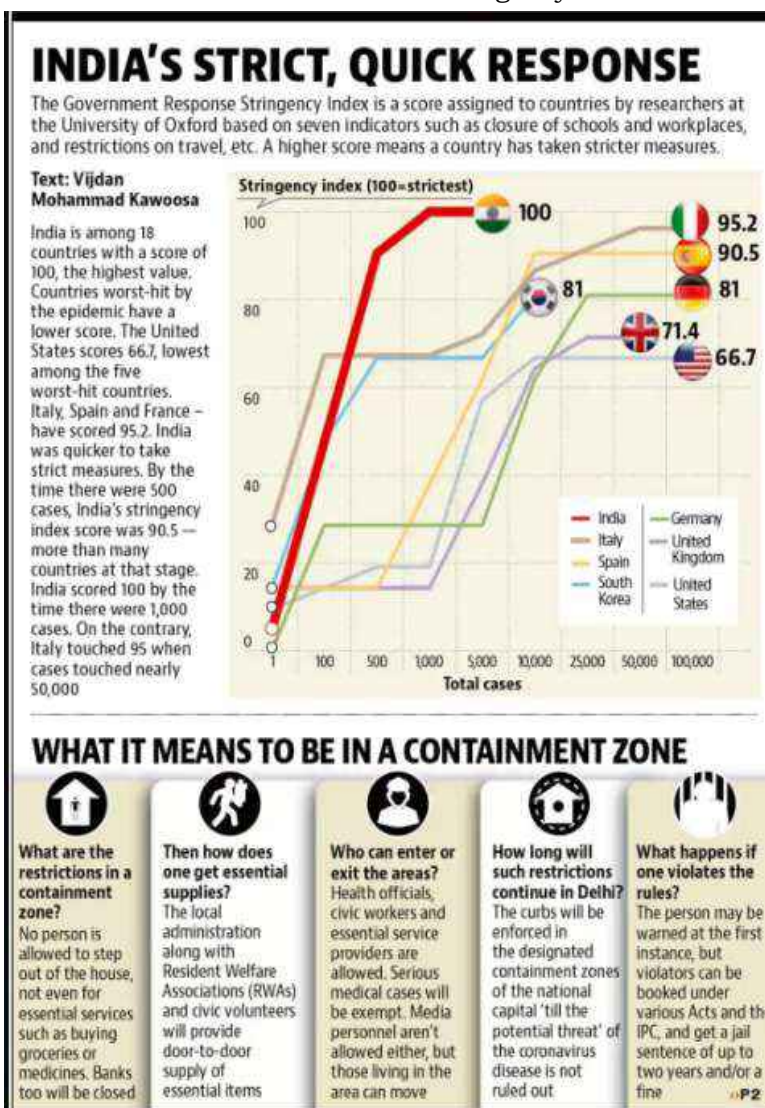
- It is among the metrics being used by the Oxford COVID19 Government Response Tracker. The Tracker involves a team of 100 Oxford community members who have continuously updated a database of 17 indicators of government response.
- These indicators examine containment policies such as school and workplace closings, public events, public transport, stay-at-home policies.
- The Stringency Index is a number from 0 to 100 that reflects these indicators. A higher



index score indicates a higher level of stringency.

What does the Stringency Index tell us?

- It provides a picture of the stage at which any country enforced its strongest measures. **Oxford provides an overlay of countries' death curve and their stringency score.**
- Some countries saw their deaths just begin to flatten as they reached their highest stringency, such as Italy, Spain or France. As China pulled stronger measures, its death curve plateaued.
- In countries such as the UK, the US and India, the Oxford graphs find that the death curve has not flattened after strictest measures were enforced.
- From the highest death count at their strongest measures, the countries compared were France, Italy, Iran, Germany, UK, Netherlands, Sweden, Mexico, Canada, Belgium, Ireland, US, Turkey, Israel, China, India, and Switzerland.
- These researchers examined if countries meet four of the six World Health Organization's (WHO) recommendations for relaxing physical distancing measures. These are: control transmission to a level the healthcare system can manage; the healthcare system can detect and isolate all cases (not just serious ones); manage transfer to and from high-risk transmission zones; and community engagement.



Comparison of India with other Countries

- When compared to other countries with similar or higher case load, India called its strict lockdown at a much earlier point on its case and death curves.
- These 18 other countries had more than 500 cases when they called their strictest lockdown, while India had 320.
- India had only four deaths on March 22, when its score reached 100, while most countries had more deaths at that point (except Switzerland; no deaths).
- Spain called for its strictest measures. Sweden has had the most liberal measures in this set and Iran the second most liberal.
- Other countries with a 100 score are Honduras, Argentina, Jordan, Libya, Sri Lanka, Serbia, and Rwanda. India now has the highest number of cases in this set.
- India scored 0.7 (below Australia, Thailand, Taiwan, and South Korea) because it scored 0 for controlling its cases. The highest scorers on this index, at 0.9, were Iceland, Hong Kong, Croatia, and Trinidad & Tobago.
- Oxford found no countries meet the four measured recommendations, but 20 are close.

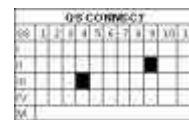
Way Forward

The emergence of Corona is proving that governments in the developing world have in-built capacities to tackle such pandemic while developed countries continue to falter. The successful containment measures however have come at economic cost especially in the developing world.

WHO: Global Nutrition Report 2020

News Excerpt

Recently, Global Nutrition Report released according to which India is among 88 countries that are likely to miss global nutrition targets by 2025. It also identified the country as one with the highest rates of domestic inequalities in malnutrition.



Pre-Connect

Global Nutrition Targets

- In 2012, the World Health Assembly (decision making body of the World Health Organisation) identified six nutrition targets for maternal, infant and young child to be met by 2025.
- These require governments to reduce stunting by 40% in children under 5 and prevalence of anemia by 50% among women in the age group of 19-49 years, ensure 30% reduction in low-birth weight and no increase in childhood overweight, increase the rate of exclusive breastfeeding in the first six months upto at least 50% and reduce and maintain childhood wasting to less than 5%.

All you want to know about malnutrition in India

The Food and Nutrition Security Analysis, India, 2019, a report by the Ministry of Statistics and Programme Implementation and The World Food Programme lists Maharashtra as one of the six states with high levels of stunting and underweight.

Key Finding of the Report:

- The highest levels of stunting and underweight are found in Jharkhand, Bihar, Uttar Pradesh, Madhya Pradesh, Gujarat and Maharashtra.
- At the national level, among social groups, the prevalence of stunting is highest amongst children from the Scheduled Tribes (43.6 percent), followed by Scheduled Castes (42.5 percent) and Other Backwards Castes (38.6 percent).
- The prevalence of stunting in children from ST in Rajasthan, Odisha and Meghalaya is high while stunting in children from both ST and SC is high in Maharashtra, Chhattisgarh and Karnataka.
- Prevalence of underweight is also highest in Jharkhand (47.8%) and is above the national average in seven more States (Maharashtra, Rajasthan, Chhattisgarh, Gujarat, Uttar Pradesh, Madhya Pradesh and Bihar) and one UT (Dadra and Nagar Haveli).

Findings of the report

- One in every nine people in the world is hungry, and one in every three is overweight or obese. More and more countries experience the double burden of malnutrition, where undernutrition coexists with overweight, obesity and other diet-related non-communicable diseases (NCDs).
- A multi-stakeholder initiative comprising global institutions, the GNR is led by experts in the field of nutrition. The GNR was established in 2014 following the first 'Nutrition for Growth' summit, as an accountability mechanism to track progress against global nutrition targets and the commitments made to reach them.
- At a time when COVID19 has further revealed the gaps in our food systems, we have a unique opportunity to act in coordination to address them and ensure that healthy and sustainably produced food is the most accessible, affordable and desirable choice for all.

What reports tell about India?

- ✓ India will miss targets for all four nutritional indicators for which there is data available, i.e. stunting among under-5 children, anemia among women of reproductive age, childhood overweight and exclusive breastfeeding.
- ✓ Between 2000 and 2016, rates of underweight have decreased from 66.0% to 58.1% for boys and 54.2% to 50.1% in girls. However, this is still high compared to the average of 35.6% for boys and 31.8% for girls in Asia.
- ✓ In addition, 37.9% of children under-5 years are stunted and 20.8% are wasted, compared to the Asia average of 22.7% and 9.4% respectively.
- ✓ India is identified as among the three worst countries, along with Nigeria and Indonesia, for steep within-country disparities on stunting, where the levels varied four-fold across communities.
- ✓ Stunting level in Uttar Pradesh is over 40% and their rate among individuals in the lowest income group is more than double than those in the highest income group at 22.0% and 50.7%, respectively.
- ✓ In addition, stunting prevalence is 10.1% higher in rural areas compared to urban areas. The same applies for overweight and obesity; where there are nearly double as many obese adult females as there are males (5.1% compared to 2.7%).

What is malnutrition?

Malnutrition, in all its forms, includes undernutrition (wasting, stunting, underweight), inadequate vitamins or minerals, overweight, obesity, and resulting diet-related noncommunicable diseases.

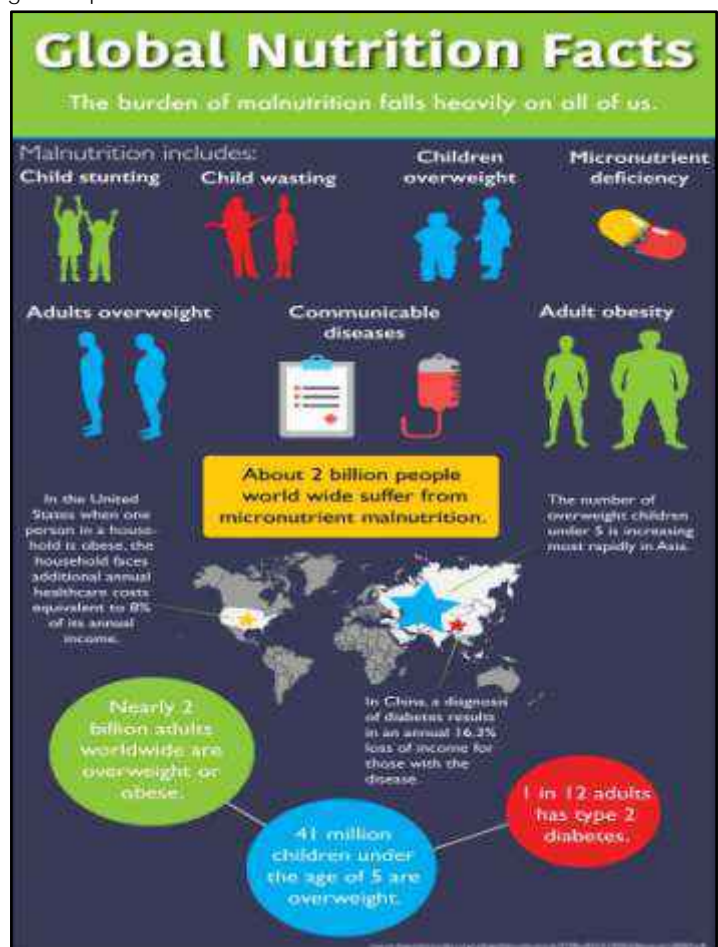
Analytica

Food and Malnutrition in the country

- Over the last 20 years, total food grain production in India increased from 198 million tonnes to 269 million tonnes. Despite increase in food production, the rate of malnutrition in India remains very high.
- The energy and protein intake from cereals has decreased in both rural and urban India, largely because of increased consumption of other food items such as milk and dairy products, oils and fat and relatively unhealthy food such as fast food, processed food, and sugary beverages.
- The consumption of unhealthy energy and protein sources is much higher in urban areas.

Double burden of malnutrition

- ↔ For several decades India was dealing with only one form of malnutrition– undernutrition. In the last decade, the double burden which includes both over- and undernutrition, is becoming more prominent and poses a new challenge for India.
- ↔ From 2005 to 2016, prevalence of low ($< 18.5 \text{ kg/m}^2$) body mass index (BMI) in Indian women decreased from 36% to 23% and from 34% to 20% among Indian men.



- ↔ During the same period, the prevalence of overweight/obesity (BMI > 30 kg/m²) increased from 13% to 21% among women and from 9% to 19% in men.
- ↔ Children born to women with low BMI are more likely to be stunted, wasted, and underweight compared to children born to women with normal or high BMI.

Conclusion

Malnutrition does not exist in isolation – individuals, households and communities share multiple forms of malnutrition. Therefore, it is imperative that policy efforts also come together under a common umbrella and an overarching body is needed to ensure convergence.

PEPPER IT WITH
Moderate Acute malnutrition (MAM),
Severe Acute Malnutrition (SAM),
Severe Chronic Malnutrition (SCM)
and Stunting, Article 47 of the Indian Constitution.

International Health Regulation

News Excerpt

India is among 58 nations, including 27 European Union members, who have moved a draft resolution demanding evaluation of the World Health Organisation (WHO)'s response towards the novel coronavirus pandemic. The resolution will be tabled in the 74th World Health Assembly to be convened by the WHO.

About the Draft resolution

The draft resolution is moved by Australia.

Demand of the Draft resolution

- It demands initiation “at the earliest appropriate moment to review experience gained and lessons learned from the WHO-coordinated international health response to COVID19”.
- The resolution says timelines are to be evaluated regarding the recommendations WHO made to improve global pandemic prevention, preparedness, and response capacity.
- The resolution also says that the functioning of the International Health Regulation (IHR) must be reviewed. IHR is a set of obligations according to an international agreement.
- It also demanded that while scaling up production and research for diagnostics, therapeutics and vaccines, it must be ensured that they are equitably distributed.
- To identify the zoonotic source of the virus and the route of introduction to the human population, including the possible role of intermediate hosts.

Role of WHO in Health Emergencies

- ❖ Prepare for emergencies by identifying, mitigating and managing risks.
- ❖ Prevent emergencies and support development of tools necessary during outbreaks
- ❖ Respond to acute health emergencies.
- ❖ Support delivery of essential health services in fragile settings.

Criticisms surrounding WHO's response in the wake of pandemic

- ❖ The WHO did not support countries for imposing travel restrictions to China. When countries began evacuating their citizens from Wuhan, the COVID-19 epicentre, the WHO said it did not favour this step.
- ❖ The road to declaring COVID-19 a pandemic was equally bumpy. WHO officials vehemently denied this till mid-February despite warnings from global health experts. It was finally declared on March 11.
- ❖ The WHO has come under sharp criticism not just from the United States but other quarters as well for its response being 'China-centric'

International Health Regulation 2005

- The purpose and scope of the International Health Regulations (2005) are “to prevent, protect, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, which avoid unnecessary interference with international traffic and trade”.

- The IHR (2005) are not limited to specific diseases but apply to new and ever- changing public health risks, they are intended to have long-lasting relevance in the international response to the emergence and spread of disease.
- The IHR (2005) also provide the legal basis for important health documents applicable to international travel and transport and sanitary protections for the users of international airports, ports, and ground crossings.

Epidemic vs. Pandemic

An epidemic is defined as “an outbreak of disease that spreads quickly and affects many individuals at the same time.” A pandemic is a type of epidemic (one with greater range and coverage), an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population. While a pandemic may be characterized as a type of epidemic, you would not say that an epidemic is a type of pandemic.

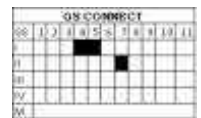
Role of IHR

Its role becomes all the more important in events like pandemics and global health emergencies. The WHO plays the coordinating role in IHR. Many independent and WHO committees in the past have pointed out the inefficient adherence to this agreement by various countries.

Sample Registration System (SRS)

News Excerpt

Recently, The Registrar General of India released Sample Registration System Bulletin based on data collected for 2018.



Pre-Connect

- The Sample Registration System has been developed in India since 1964 to provide estimates of fertility and mortality at both state and national levels.
- The system includes both continuous enumeration of vital events and a semiannual evaluation survey of the data collected.
- The sample design is described and the types of data collected are listed. Measures taken to improve the quality of the data are also discussed.

PEPPER IT WITH
Registrar General of
India, IMR and MMR

The main components of SRS are

- Base-line survey of the sample units to obtain usual resident population of the sample areas.
- Continuous (longitudinal) enumeration of vital events pertaining to usual resident population.
- Independent retrospective half-yearly surveys for recording births and deaths which occurred during the half-year under reference and up-dating the House-list, Household schedule and the list of women in the reproductive age group along with their pregnancy status by the Supervisor.
- Matching of events recorded during continuous enumeration and those listed in course of half-yearly survey.
- Field verification of unmatched and partially matched events.
- Filling of Verbal Autopsy Forms for finalized deaths.

Mechanism of SRS

- ✓ Various methods based on the application of sampling techniques have been tried and tested in many developing countries.
- ✓ Such methods include single and multi-round retrospective surveys and the dual record system. The SRS in India is based on a dual record system.
- ✓ The field investigation under Sample Registration System consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part time enumerator, and an independent six-monthly retrospective survey by a full-time supervisor.

- ✓ The data obtained through these two sources are matched. The unmatched and partially matched events are re-verified in the field to get an unduplicated count of correct events.
- ✓ The advantage of this procedure, in addition to elimination of errors of duplication, is that it leads to a quantitative assessment of the sources of distortion in the two sets of records making it a self evaluating technique.

Key Finding of survey

Birth Rate

- o Birth Rate is a crude measure of fertility of a population and is a crucial determinant of population growth. It gives the number of live births per thousand population in a given region and year.
- o The birth rate at all India level has declined drastically over the last four decades from 36.9 in 1971 to 20.0 in 2018. The rural-urban differential has also narrowed over these years. However, the birth rate has continued to be higher in rural areas compared to urban areas in the last four decades.
- o In 2018, the birth rate for India varies from 16.7 in urban regions to 21.6 in rural regions. The highest birth rate has been recorded in Bihar (26.2) while the lowest in Andaman & Nicobar Islands (11.2).

Death Rate

- o Mortality is one of the basic components of population change and the related data is essential for demographic studies and public health administration.
- o Death rate is one of the simplest measures of mortality and is defined as the number of deaths per thousand population in a given region and time period.
- o The death rate of India has witnessed a significant decline over the last four decades from 14.9 in 1971 to 6.2 in 2018. The decline has been steeper in rural areas as compared to urban areas.
- o For the year 2018, the death rate for India varies from 5.1 in urban areas to 6.7 in rural areas. The death rate for the States/Union Territories ranges from 3.3 in Delhi to 8.0 in Chhattisgarh for 2018.

Infant Mortality Rate

- o The Infant Mortality Rate (IMR), which is widely accepted as a crude indicator of the overall health scenario of a country or a region, is defined as the infant deaths (less than one year) per thousand live births in a given time period and for a given region.
- o The present level of IMR (32 infant deaths per thousand live births, for the year 2018) is about one-fourth as compared to 1971 (129 infant deaths per thousand live births). In the last ten years, IMR has witnessed a decline of about 35% in rural areas and about 32% in urban areas.
- o Despite the decline in IMR over the last decades, one in every 31 infants die within first year of their life at the National level (irrespective of rural/urban).
- o One in every 28 infants in rural areas and one in every 43 infants in urban areas still die within one year of life. Among the States/Union Territories, the IMR ranges from 4 in Nagaland to 48 in Madhya Pradesh for 2018.



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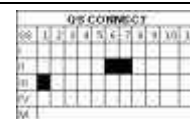
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ECONOMY

Rajiv Gandhi Kisan Nyaya Yojana

News Excerpt

Farmers in Chhattisgarh would get monetary relief under a new income support programme.



Pre-Connect

- An income support is a government guarantee that certain citizens receive a minimum income. It is also basic income. The intention behind the payment is to provide enough to cover the basic cost of living and provide financial security. The concept has regained popularity as a way to offset job losses caused by technology.
- Plans differ on who receives the income. Some would pay every citizen, regardless of income. Others would only pay those who are below the poverty line, whether they are working or not.
- Basic income has the following characteristics:
 - Periodic: it is paid at regular intervals (for example every month), not as a one-off grant.
 - Individual: it is paid on an individual basis—and not, for instance, to households.
 - Unconditional: it is paid without a requirement to work or to demonstrate willingness-to-work.

Highlights

- The scheme would cover rice, maize and sugarcane farmers to begin with, and would expand to other crops later.
- Rice and maize farmers would get ₹10,000 an acre while sugarcane farmers would get ₹13,000.
- The money would be distributed in four instalments.
- In the first instalment, ₹1,500 crore would be distributed among 18 lakh farmers of which more than 80% are small and marginal. The annual cost of the scheme would be ₹5,700 crore.

Minimum Support Price

It is the price at which government purchases crops from the farmers, whatever may be the price for the crops. **Minimum Support Price is an important part of India's agricultural price policy.**

Who declares and who prepares it?

The Cabinet Committee on Economic Affairs (CCEA), Government of India, determines the Minimum Support Prices (MSP) of various agricultural commodities in India based on the recommendations of the Commission for Agricultural Cost and Prices (CACP).

How is it calculated?

According to the formula prescribed by the Swaminathan Committee, there are three variables that determine production cost: A2, A2+FL, and C2.

- ❖ A2- Includes out-of-pocket expenses borne by farmers, such as term loans for machinery, fertilizers, fuel, irrigation, cost of hired labour and leasing land.
- ❖ A2+FL, takes into account the imputed value of unpaid labour on the part of family members, in addition to the paid-out cost.
- ❖ (C2) -The Comprehensive Cost (C2) is more reflective of the actual cost of production since it takes it accounts for rent and interest foregone on owned land and machinery, over and above the A2+FL rate.

The ideal formula according the Committee would be: $MSP = C2 + 50\% \text{ of } C2$.

Analytica

- ✓ Chhattisgarh had paid farmers above the Central Minimum Support Price (MSP) last year but the Centre disapproved of this.
- ✓ **The State's attempt was to** meet the standards set by the Swaminathan Commission that farmers must get 150% of their cost of production as MSP.
- ✓ The new scheme would compensate the farmers through a different track.

- ✓ The injection of cash among the rural population generated demand that shielded Chhattisgarh from the economic slowdown last year.
- ✓ This will reduce distress migration, and enhance food security for the State and the country.
- ✓ This will help them through the agricultural cycle and hopefully help with extension activities.

 PEPPER IT WITH
CCEA, CPI, WPI, CACP

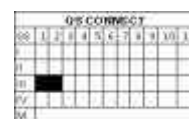
Conclusion

The additional income to farmers would increase rural demand and also act as a stimulus for the State's economy.

Excise Duty

News Excerpt

The Centre raised the excise duty on petrol by Rs 10 and on diesel by Rs.13 per litre to recoup some of the loss of revenue suffered by the government due to the Covid-19 lockdown. The change in the tax structure will not impact the retail sale price of petrol and diesel on account of the excise duty hike.



Pre-Connect

- An excise duty is a type of indirect tax that is levied on the sales of particular goods. This tax is not paid directly by the customer but is passed on to the consumer by a merchant or producer of goods as a part of the price of the product.
- GST has now subsumed a number of indirect taxes including excise duty. This means excise duty, technically, does not exist in India except on a few items such as liquor and petroleum.
- Alcohol does not come under the purview of GST as exclusion mandated by constitutional provision. States levy taxes on alcohol according to the same practice as was prevalent before the rollout of GST.
- After GST was introduced, excise duty was replaced by central GST because excise was levied by the central government. The revenue generated from CGST goes to the central government.

Why increase excise duty?

A Rupee 1 per litre increase in excise duty on petrol and diesel usually means an additional Rs 14,500 crore in annual revenue to the government. But the revenue will accrue only when demand for the fuel, curtailed due to the extended lockdown, rises substantially.

Types of Excise Duties in India

Before GST kicked in, there were three kinds of excise duties in India.

- ❖ Basic Excise Duty- Sometimes referred to as Central Value Added Tax (CENVAT), this type of excise duty is imposed on goods classified under the first schedule of the Central Excise Tariff Act, 1985. This duty is levied on all excisable goods in the country except salt.
- ❖ Additional Excise Duty- Such duty is levied on some specific goods and is charged by the central and state government as a substitute of the sales tax. The Additional Duties of Excise (Textiles and Textile Articles) Act, 1978 also provide for a similar legislation.
- ❖ Special Excise Duty- This kind of duty is levied on special goods specified under the Second Schedule to the Central Excise Tariff Act, 1985.

Excise Duty	Custom Duty	Sales Tax or VAT
Excise Duty is a form of indirect tax that is levied on goods that have been manufactured in the country. It is levied by the government. It ideally has to be paid by the manufacturer of goods at the time of introduction of goods in to the market. Thus, it is commonly referred to as manufacturing tax.	Custom Duty is an indirect tax that is levied on goods that are being sold in the country but have been manufactured outside India. Thus, it is applicable on goods sourced from other countries.	Sales TAX and VAT or Value Added Tax is the tax that is charged on the consumption of the goods. VAT and Sales Tax are charged to a certain range of products, while the Excise Duty is charged on a relatively narrower product range. On the other hand, Sales Tax and VAT are calculated as per the maximum retail price of products and services, but Excise Duty is calculated on a per-unit basis.

Conclusion

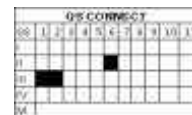
The revenue generated from these duties shall be used for infrastructure and other developmental items of expenditure.

PEPPER IT WITH
CBEC, CBDT, GSTN, IGST

Economic Stimulus

News Excerpt

Union Finance Minister Smt. Nirmala Sitharaman announced a ₹3 lakh crore collateral free loan scheme for businesses, especially micro, small and medium enterprises (MSMEs), as part of a ₹20-lakh-crore economic stimulus package to deal with the COVID-19.



Pre-Connect

- This is the first tranche of the Atmanirbhar Bharat Abhiyan announced by Prime Minister Narendra Modi as a ₹20 lakh crore economic package.
- That package includes the ongoing Pradhan Mantri Garib Kalyan Yojana, meant to support the poorest and most vulnerable communities during the pandemic, as well as several measures taken by the Reserve Bank of India to improve liquidity.

Lockdown antidote

Finance Minister Nirmala Sitharaman announced the features for the first part of the Atmanirbhar Bharat Abhiyan

For small businesses

- ₹3,00,000 crore emergency credit for Micro, Small and Medium Enterprises (MSMEs)
- Only domestic firms can bid for govt. procurements up to ₹200 crore

For employees/ tax payers


- EPF deductions slashed for 3 months to 20% from 24% of salary; IT returns deadline extended
- This will enhance take-home pay if employers pass it on, but dent retirement savings

For infrastructure sector

- Power PSUs to lend ₹90,000 crore to stressed State distribution companies

For financial sector

- Deadlines for realty projects and public infrastructure contracts extended
- Fresh ₹45,000 crore partial credit guarantees for non-banking finance companies (NBFCs)
- ₹30,000 crore special liquidity for microfinance/ housing finance firms and NBFCs



Relief at hand: Finance Minister Nirmala Sitharaman addressing a press conference to announce details of the economic stimulus package in New Delhi on Wednesday.

SHIV KUMAR PUSHPAKAR

- It is estimated that the measures announced amounted to ₹5.94 lakh crore, which include both liquidity financing measures and credit guarantees, although the direct fiscal cost to the government in the current financial year may only be ₹16,500 crore.

Highlights

For salaried workers and taxpayers

- Some relief was provided in the form of an extended deadline for income tax returns for financial year 2019-20, with the due date now pushed to November 30, 2020.
- The rates of tax deduction at source (TDS) and tax collection at source (TCS) have been cut by 25% for the next year, while statutory provident fund (PF) payments have been reduced from 12% to 10% for both employers and employees for the next three months.

MSME

- MSMEs will get the bulk of the funding. The ₹3 lakh crore emergency credit-line will ensure that 45 lakh units have access to working capital to resume business activity and safeguard jobs.
- For two lakh MSMEs which are stressed or considered non-performing assets, the Centre will facilitate provision of ₹20,000 crore as subordinate debt.
- A ₹50,000 crore equity infusion is also planned, through an MSME fund of funds with a corpus of ₹10,000 crore.

The definition of an MSME is being expanded to allow for higher investment limits and the introduction of turnover-based criteria.

Global tenders

In a bid to fulfil the Prime Minister's vision of a self-reliant or "Atmanirbhar" India, global tenders will not be allowed for government procurement up to ₹200 crore.

NBFCs get attention

NBFCs, housing finance companies and microfinance institutions, many of which serve the MSME sector, will be supported through a ₹30,000 crore investment scheme fully guaranteed by the Centre, and an expanded partial credit guarantee scheme worth ₹45,000 crore, of which the first 20% of losses will be borne by the Centre.

Power distribution companies

Power distribution companies, which are facing an unprecedented cash flow crisis, will receive a ₹90,000 crore liquidity injection. Contractors will get a six month extension from all Central agencies, and also get partial bank guarantees to ease their cash flows.

Real Estate

Registered real estate projects will get a six-month extension, with COVID-19 to be treated as a "force majeure" event.

EPF support

- Employee Provident Fund (EPF) support, provided to low-income organized workers in small units under the PMGKY is being extended for another three months and is expected to provide liquidity relief of ₹2,500 crore.
- Mandatory EPF contributions are also being reduced from 12% to 10% for both employees and employers in all other establishments.

Concerns

- Risk-averse bankers may not extend the loan benefits to all MSMEs despite the **government's 100% credit** guarantee. Some pick and choose is going to happen now, and some of those who need it and deserve may not get it. It would have been better if the government had made it mandatory across the board.
- **Immediate injection of liquidity is a "low-hanging fruit for the government" and would come at the cost of workers' savings.**

Existing and Revised Definition of MSMEs			
Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Mfg. Enterprises	Investment < Rs. 25 lac	Investment < Rs. 5 cr.	Investment < Rs. 10 cr.
Services Enterprise	Investment < Rs. 10 lac	Investment < Rs. 2 cr.	Investment < Rs. 5 cr.
Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < Rs. 1 cr. and Turnover < Rs. 5 cr.	Investment < Rs. 10 cr. and Turnover < Rs. 50 cr.	Investment < Rs. 20 cr. and Turnover < Rs. 100 cr.

PEPPER IT WITH
RBI, CGS, NPA, MUDRA

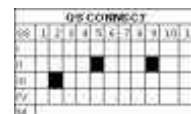
Conclusion

A clear feature of announcement is that most of these are basically supply side measures, aimed at activating businesses in the MSME, real estate, NBFC sectors. Generally, stimulus measures are aimed at boosting demand either by government spending on its own account or increasing disposable incomes of households through cash transfers or tax concessions.

Open Budget Survey by IBP

News Excerpt

India has been placed at 53rd position among 117 nations in terms of budget transparency and accountability, according to Open Budget Survey conducted by International Budget Partnership (IBP).



Rank	Country	Score
1	New Zealand	87
...
53	India	49
...
117	South Africa	87

Pre-Connect

International Budget Partnership (IBP) is an independent non-profit corporation, formerly a project of the Center on Budget and Policy Priorities. It focuses on government budgets because they are at the core of development.

Highlights

Global Performance

- New Zealand tops the chart with a score 87.
- Some of the other large developing countries, with the exception of China, have got much higher transparency scores compared to India.
- South Africa (87), Mexico (82) and Brazil (81) are among the top six countries providing extensive information to public for scrutiny.

India's Performance

- India's Union Budget process a transparency score of 49 out of 100, which is higher than the global average of 45.
- If one compares India's performance in this global biennial survey, there is stagnation over the last few years.
- India performs well in publishing timely and relevant information in the audit reports and in-year reports and has scored well and above many other countries
- However, the survey observed that absence of a published Pre-Budget Statement and not bringing out a Mid-Year Review in 2018-19 pulled down the transparency score for the Union Budget of India.

Analytica

- Centre for Budget and Governance Accountability (CBGA), which contributed research inputs towards developing an assessment of budget transparency for the efforts by the Union Government, noted that IBP draws attention to the importance of enhancing budget transparency and strengthening accountability for government budgets.
- CBGA had highlighted the major obstructions in budget transparency at the district level and suggested a number of reforms.
- Creating an integrated budget and expenditure information architecture at every district headquarter and enabling the District Development Coordination and Monitoring Committee to use this information to enforce accountability of the executive for budget implementation.

Open Budget Survey

- ❖ The survey, covering 117 countries, rates the level of budget transparency across countries on a scale of 0-100, based on several normative, internationally comparable indicators.
- ❖ The Open Budget Survey is part of the International Budget Partnership's Open Budget Initiative, a global research and advocacy program to promote public access to budget information and the adoption of accountable budget systems.
- ❖ It evaluates for each country, the availability of eight key budget documents of the Central or Federal Government, and assesses whether these are made public, in a timely manner, and provide comprehensive information.
- ❖ It provides adequate space for public participation for priority setting in its budgets.
- ❖ The Union Government should also publish a Pre-Budget Statement, which can be scrutinized by the legislators and the public at large before the annual budget is presented.

Conclusion

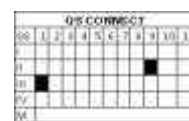
Budget transparency is always an important parameter of fiscal governance. It assumes greater significance during the times of the COVID-19 pandemic as a sizable chunk of public expenditure is likely to get financed by higher magnitudes of government borrowing not just in the current fiscal but in the subsequent couple of years too.

PEPPER IT WITH
Charged Expenditure, Money bill,
PAC, Finance Bill, Appropriation bill

China's Digital Currency

News Excerpt

China's central bank has started testing its official digital currency days after Facebook-backed Libra scaled back its ambitions to become a global currency.



Pre-Connect

- Facebook's Libra project was once touted as a new currency for the internet era but these hopes have faded in the face of strong scrutiny from regulators. Libra group decided that the future currency will be a digital unit tied to an existing currency such as the US dollar or the euro, instead of a brand-new token based upon a basket of currencies.
- The research and development work of China's official digital currency, dubbed as DC/EP, (Digital currency/Economic payment) is proceeding steadily, and the internal pilot tests are carried out in four cities.
- The trial run will be piloted within a small range of banks and end users, and spread to a wider range with an improved technology and system.
- More banks will continue to participate in the test of the DC/EP, in a bid to improve the technology, security and stability of the payment tool.
- The total size of China's digital currency could reach one trillion yuan (USD140 billion) over the coming years, equivalent to digitalising about one eighth of China's cash.
- The total market capitalisation of cryptocurrencies, including bitcoin, is about USD 200 billion.

Digital Currency

- ❖ Digital currency is a form of currency that is available only in digital or electronic form, and not in physical form. It is also called digital money, electronic money, electronic currency, or cyber cash.
- ❖ They are often the cheapest method to trade currencies.
- ❖ All cryptocurrencies are digital currencies, but not all digital currencies are crypto.
- ❖ Digital currencies are stable and are traded with the markets, whereas cryptocurrencies are traded via consumer sentiment and psychological triggers in price movement.

Digital currency	Virtual currency	Cryptocurrency
It can be considered a superset of virtual currencies and cryptocurrencies. If issued by a central bank of a country in a regulated form, it is called the "Central Bank Digital Currency (CBDC)." While the CBDC only exists in conceptual form, England, Sweden, and Uruguay are a few of the nations that have considered plans to launch a digital version of their native fiat currencies.	Along with the regulated CBDC, a digital currency can also exist in an unregulated form. In the latter case, it qualifies for being called a virtual currency and may be under the control of the currency developer(s), the founding organization, or the defined network protocol, instead of being controlled by a centralized regulator. Examples of such virtual currencies include cryptocurrencies, and coupon- or rewards-linked monetary systems.	It is another form of digital currency which uses cryptography/Blockchain Technology to secure and verify transactions and to manage and control the creation of new currency units. Bitcoin & Ethereum are the most popular cryptocurrencies. These are decentralized.

Analytica

RBI Stand on Digital currencies

- The Reserve Bank of India has said it had not banned cryptocurrencies such as Bitcoin in India, but only ring-fenced regulated entities like banks from risks associated with trading of such virtual instruments.
- The central bank said this in a response to a petition filed by the Internet and Mobile Association of India (IAMAI), which wanted it to reconsider a 2018 circular directing regulated entities not to deal in cryptocurrencies.

PEPPER IT WITH
Block-chain Technology, Petro

Supreme Court's stand

Supreme Court struck down a circular of Reserve Bank of India, which bans financial institutions from enabling deals in digital or cryptocurrencies.

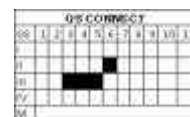
Conclusion

China is expected to officially make the sovereign digital currency available to the public later this year.

Scheme for Formalisation of Micro Food Processing Enterprises

News Excerpt

The Union Cabinet has given its approval to a new Centrally Sponsored Scheme - "Scheme for formalisation of Micro food processing Enterprises (FME)" for the Unorganized Sector on All India basis with an outlay of Rs.10,000 crore.



Pre-Connect

- There are about 25 lakh unregistered food processing enterprises which constitute 98% of the sector and are unorganized and informal. Nearly 66 % of these units are located in rural areas and about 80% of them are family-based enterprises.
- This sector faces a number of challenges including the inability to access credit, high cost of institutional credit, lack of access to modern technology, inability to integrate with the food supply chain and compliance with the health & safety standards.

Highlights

Salient features	Objectives
<ul style="list-style-type: none"> Centrally Sponsored Scheme. Expenditure to be shared by Government of India and States at 60:40. 2,00,000 micro-enterprises are to be assisted with credit linked subsidy. Scheme will be implemented over a 5 year period from 2020-21 to 2024-25. Cluster approach. Focus on perishables. 	<ul style="list-style-type: none"> Increase in access to finance by micro food processing units. Increase in revenues of target enterprises. Enhanced compliance with food quality and safety standards. Strengthening capacities of support systems. Transition from the unorganized sector to the formal sector. Special focus on women entrepreneurs and Aspirational districts. Encourage Waste to Wealth activities. Focus on minor forest produce in Tribal Districts

Support to Individual micro units	Support to FPOs/SHGs/Cooperatives
<ul style="list-style-type: none"> Micro enterprises will get credit linked subsidy @ 35% of the eligible project cost with ceiling of Rs.10 lakh. Beneficiary contribution will be minimum 10% and balance from loan. On-site skill training & Handholding for DPR and technical upgradation. 	<ul style="list-style-type: none"> Seed capital to SHGs for loan to members for working capital and small tools. Grant for backward/ forward linkages, common infrastructure, packaging, marketing & branding. Skill training & Handholding support. Credit linked capital subsidy

Implementation schedule

- The scheme will be rolled out on All India basis.
- Back ended credit linked subsidy will be provided to 2,00,000 units.
- Seed capital will be given to SHGs (@Rs. 4 lakh per SHG) for loan to members for working capital and small tools.
- Grant will be provided to FPOs for backward/forward linkages, common infrastructure, packaging, marketing & branding.

Administrative and Implementation Mechanisms

- The Scheme would be monitored at Centre by an Inter-Ministerial Empowered Committee (IMEC) under the Chairmanship of Minister, FPI.
- A State/ UT Level Committee (SLC) chaired by the Chief Secretary will monitor and sanction/ recommend proposals for expansion of micro units and setting up of new units by the SHGs/ FPOs/ Cooperatives.
- The States/ UTs will prepare Annual Action Plans covering various activities for implementation of the scheme, which will be approved by Government of India.
- A third party evaluation and mid-term review mechanism would be built in the programme.

State/ UT Nodal Department & Agency

- The State/ UT Government will notify a Nodal Department and Agency for implementation of the Scheme.
- State/ UT Nodal Agency (SNA) would be responsible for implementation of the scheme at the State/ UT level including preparation and validation of State/ UT Level Upgradation Plan, Cluster Development Plan, engaging and monitoring the work of resource groups at district/ regional level, providing support to units and groups, etc.

National Portal & MIS

- A National level portal would be set-up wherein the applicants/ individual enterprise could apply to participate in the Scheme.
- All the scheme activities would be undertaken on the National portal.

Convergence Framework

- Support from the existing schemes under implementation by the Government of India and State Governments would be availed under the scheme.
- The Scheme would attempt to fill in the gaps, where support is not available from other sources, especially for capital investment, handholding support, training and common infrastructure.

Impact and Employment Generation

- Nearly eight lakh micro- enterprises will benefit through access to information, better exposure and formalization.
- Credit linked subsidy support and hand-holding will be extended to 2,00,000 micro enterprises for expansion and upgradation.
- It will enable them to formalize, grow and become competitive.
- The project is likely to generate nine lakh skilled and semi-skilled jobs.
- Scheme envisages increased access to credit by existing micro food processing entrepreneurs, women entrepreneurs and entrepreneurs in the Aspirational Districts.
- Better integration with organized markets.
- Increased access to common services like sorting, grading, processing, packaging, storage etc.

PEPPER IT WITH
FPO, Sampada, Mega Food Parks

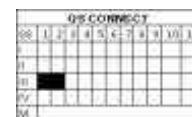
Conclusion

Strengthening this segment will lead to reduction in wastage, creation of off-farm job opportunities and aid in achieving the overarching Government objective of doubling farmers' income.

General Financial Rules (Recent Amendment)

News Excerpt

The government has notified amendments to General Financial Rules (GFR) to ensure that goods and services valued less than Rs 200 crore are being procured from domestic firms.



Pre-Connect

What are General Financial Rules (GFRs)?

These are a compilation of rules and orders of Government of India to be followed by all while dealing with matters involving public finances. These rules and orders are treated as executive instructions to be observed by all Departments and Organisations under the Government and specified Bodies except otherwise provided for in these Rules.

Objective

The objective was to make the GFRs facilitate efficiency and timely implementation while following principles of accountability and procedures of financial discipline and administrative due diligence.

When were these first issued?

General Financial Rules were issued for the first time in 1947 bringing together in one place all existing orders and instructions pertaining to financial matters.

Subsequent modifications

- These have subsequently been modified and issued as GFRs 1963 and GFRs 2005.
- The GFR 2017 was revised in 2017 to make sure an organization manages its business without compromising its flexibility.

Need of change

Reforms in Government budgeting like removal of distinction in non-plan and plan expenditure, merger of Railway Budget with General Budget, focusing on outcomes through an improved Outcome Budget document, all needed to be reflected in the GFRs. Increased focus on Public Finance Management System (PFMS), reliance on the Direct Benefit Transfer (DBT) Scheme to ensure efficient delivery of entitlements, introduction of new e-sites like Central

Public Procurement Portal, Government e-Marketing (GeM) Portal, Non-Tax Revenue Portal have also necessitated revision of the existing GFRs to keep them in tune with the changing business environment.

Analytica

- Aatmanirbhar Bharat Package will provide a big boost to domestic suppliers, especially MSMEs
- No Global Tender Enquiry (GTE) shall be invited for tenders up to Rs 200 crore or such limit as may be prescribed by the Department of Expenditure from time to time.
- Tenders below such limit, in exceptional cases where the Ministry or Department feels that there are special reasons for GTE, it may record its detailed justification and seek prior approval for relaxation to the rule from competent authority specified by the Department of Expenditure.
- The MSME package comprised Rs 3 lakh crore of collateral-free loans, which would benefit about 45 lakh small businesses.
- Another two lakh such businesses would benefit from a Rs 20,000 crore subordinate debt for stressed or loan defaulting MSMEs. Fund of funds for MSMEs is also being created, which will infuse Rs 50,000 crore equity in units that have growth potential.
- Also, the definition of MSMEs has been changed from a pure investment-based one to that provides for higher investments and turnover for companies to remain as small businesses, and avail financial and other incentives.
- Besides, an estimated Rs 1 lakh crore in dues to MSMEs by government and central PSUs will be released within 45 days.

Conclusion

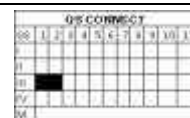
Small and mid-sized businesses in India account for about a third of gross domestic product and employ more than 11 crore people and the package announced is aimed at helping them overcome coronavirus disruptions.

PEPPER IT WITH
MUDRA, CGTMSE, PMEGP

Voluntary Retention Route

News Excerpt

Foreign portfolio investors (FPIs) significantly reduced the pace of outflows in April, after a record net outflow of Rs 1,18,203 crore in March 2020. In April, FPIs pulled out a net of Rs 14,858 crore from equity and debt markets.



Pre-Connect

- Foreign portfolio investment (FPI) involves holding financial assets from a country outside of the investor's own.
- FPI holdings can include stocks, ADRs, GDRs, bonds, mutual funds, and exchange traded funds.
- Along with foreign direct investment (FDI), FPI is one of the common ways for investors to participate in an overseas economy, especially retail investors.
- Unlike FDI, FPI consists of passive ownership; investors have no control over ventures or direct ownership of property or a stake in a company.

Debt investments	Equity investments
<ul style="list-style-type: none"> → Debt investments, such as bonds and mortgages, specify fixed payments, including interest, to the investor. → Debt investments tend to be less risky than equity investments but usually offer a lower but more consistent return. → They are less volatile than common stocks, with fewer highs and lows than the stock market. 	<p>Equity investments, such as stock, are securities that come with a "claim" on the earnings and/or assets of the corporation.</p>

Analytica

- Voluntary retention route (VRR) channel is aimed at attracting long-term and stable FPI investments into debt markets, while providing FPIs with operational flexibility to manage their investments.
- There were net positive investors in debt voluntary retention route (VRR) scheme that allows FPIs to participate in repos and also invest in exchange traded funds that invest in debt instruments. They invested a net of Rs 4,032 crore in debt VRR schemes in April.
- With selective relaxation in the lockdown and gradual opening up of economic activity in the country, foreign investors will be closely watching the developments on this front.
- They would also start looking at the domestic economic indicators as well to see how the country manages its deficits, he added.

Revised VRR scheme opened for allotment from January 24, 2020

- ❖ The investment limit under VRR has been increased to ₹ 1,50,000 crores.
- ❖ The minimum retention period shall be three years.
- ❖ Investment limits shall be available **'on tap'** and allotted on **'first come, first served'** basis.
- ❖ The **'tap'** shall be kept open till the limit is fully allotted.
- ❖ FPIs may apply for investment limits online to Clearing Corporation of India Ltd. (CCIL) through their respective custodians.
- ❖ CCIL will separately notify the operational details of application process and allotment.

Conclusion

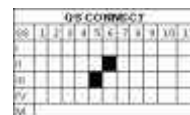
Measures announced by the government and the RBI periodically to revitalize the sagging economy would have also resonated well with investors.

PEPPER IT WITH
FDI,FPI,ADR,GDR, MUTUAL Funds

National Infrastructure Pipeline

News Excerpt

The Task Force on National Infrastructure Pipeline (NIP) submitted its Final Report on NIP for FY 2019-25 to the Union Minister for Finance & Corporate Affairs.



Pre-Connect

The Prime Minister in his Independence Day speech 2019 reiterated that for development of modern infrastructure, an amount of Rs. 100 lakh crore has been earmarked for this period which will create new job opportunities besides improving the living standards.

Need of NIP

- NIP is a first-of-its-kind, government exercise to provide world-class infrastructure across the country, and improve the quality of life for all citizens.
- It aims to improve project preparation, attract investments (both domestic and foreign) into infrastructure, and will be crucial for target of becoming a \$5 trillion economy by FY 2025.

How is it prepared?

- The NIP has been made on a best effort basis by aggregating the information provided by various stakeholders including line ministries, departments, state governments and private sector across infrastructure sub-sectors identified in the Harmonised Master List of Infrastructure.
- To draw up the NIP, a bottom-up approach was adopted wherein all projects (Greenfield or Brownfield, Under Implementation or under conceptualisation) costing greater than Rs 100 crore per project were sought to be captured.

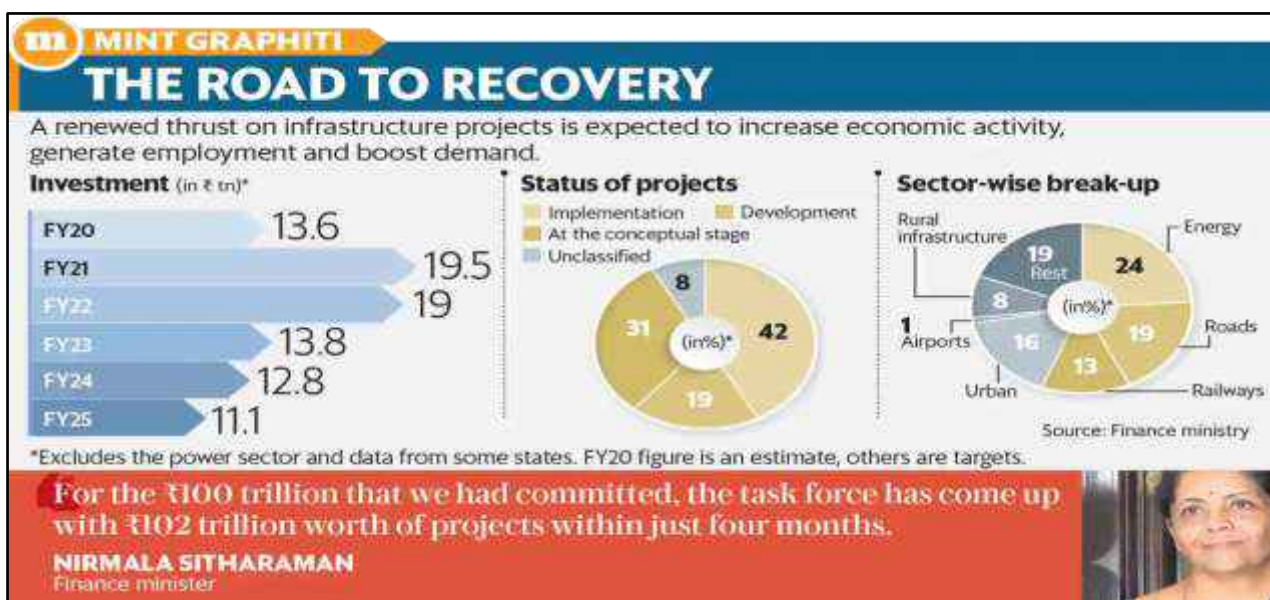
The final report

- The final report identifies and highlights recent infrastructure trends in India as well as global in all sectors of infrastructure.

- It also captures sector progress, deficits and challenges.
- In addition to update existing sectoral policies, the Final Report also identifies and highlights a set of reforms to scale up and propel infrastructure investments in various sectors throughout the country.
- The report also has suggested ways and means of financing the NIP through deepening Corporate Bond markets, including those of Municipal Bonds, setting up Development Financial Institutions for infrastructure sector, accelerating Monetisation of Infrastructure Assets, Land monetisation, etc.

Highlights

- The Final Report of NIP Task Force is projecting total infrastructure investment of Rs 111 lakh crore during the period FY 2020-25.
- Out of the total expected capital expenditure of Rs. 111 lakh crore, projects worth Rs 44 lakh crore (40% of NIP) are under implementation, projects worth Rs 33 lakh crore (30%) are at conceptual stage and projects worth Rs 22 lakh crore (20%) are under development.
- Sectors such as energy (24%), roads (18%), urban (17%) and railways (12%) amount to around 71% of the projected infrastructure investments in India.
- The Centre (39%) and States (40%) are expected to have almost equal share in implementing the NIP in India, followed by the private sector (21%).



The Task Force has recommended that three Committees be setup:

- a Committee to monitor NIP progress and eliminate delays;
- a Steering Committee in each Infrastructure ministry level for following up implementation; and
- a Steering Committee in DEA for raising financial resources for the NIP.

Conclusion

While basic monitoring will vest with the ministry and project agency, there is a need for higher level of monitoring on reforms to be undertaken and to deal with issues of stalled projects.

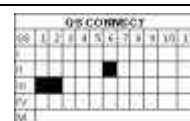
Emergency Credit Line Guarantee Scheme

News Excerpt

The Union Cabinet, has given the approval for Emergency Credit Line Guarantee Scheme.

About the Scheme

- The Emergency Credit Line Guarantee Scheme (ECLGS) has been formulated as a specific response to the unprecedented situation caused by COVID-19 and the consequent



lockdown, which has severely impacted manufacturing and other activities in the MSME sector.

- The Scheme aims at mitigating the economic distress being faced by MSMEs by providing them additional funding of up to Rs. 3 lakh crore in the form of a fully guaranteed emergency credit line.
- The main objective of the Scheme is to provide an incentive to Member Lending Institutions (MLIs), i.e., Banks, Financial Institutions (FIs) and Non-Banking Financial Companies (NBFCs) to increase access to, and enable availability of additional funding facility to MSME borrowers, in view of the economic distress caused by the COVID-19 crisis, by providing them 100 per cent guarantee for any losses suffered by them due to non-repayment of the GECL funding by borrowers.

Objectives

- To enable additional funding to eligible MSMEs and interested MUDRA borrowers.
- Under the Scheme, 100% guarantee coverage to be provided by National Credit Guarantee Trustee Company Limited (NCGTC) in the form of a Guaranteed Emergency Credit Line (GECL) facility.
- For this purpose, corpus of Rs. 41,600 crore shall be provided by Government of India spread over the current and the next three financial years.
- The Cabinet also approved that the Scheme would be applicable to all loans sanctioned under GECL
- Facility during the period from the date of announcement of the Scheme to 31.10.2020, or till an amount of Rs 3,00,000 crore is sanctioned under the GECL, whichever is earlier.

National Credit Guarantee Trustee Company Ltd (NCGTC)

- ❖ It is a private limited company incorporated under the Companies Act 1956 on March 28, 2014 Ministry of Finance, as a wholly owned company of the Government of India, to act as a common trustee company for multiple credit guarantee funds.
- ❖ Credit guarantee programmes are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.
- ❖ The common architecture of NCGTC has been designed to handle multiple guarantee programmes under a single umbrella organization.
- ❖ This is with a view to achieve operational efficiencies and economies of scale through sharing of resources such as Technology, premises, manpower, risk management solutions and other support services.
- ❖ It covers different cross-sections and segments of the economy like students, micro entrepreneurs, women entrepreneurs, SMEs, skill and vocational training needs, etc.
- ❖ Presently, there are five dedicated credit guarantee Trusts under the Management of NCGTC viz. Credit Guarantee Fund Scheme for Educational Loans (CGFEL), Credit Guarantee Fund Scheme for Skill Development (CGFSD), Credit Guarantee Fund Scheme for Factoring (CGFF), Credit Guarantee Fund for Micro Units (CGFMU) and Credit Guarantee Fund for Stand-Up India (CGFSI).

Analytica

Salient features

- ✓ All MSME borrower accounts with outstanding credit of up to Rs. 25 crore as on 29.2.2020 which were less than or equal to 60 days past due as on that date and with an annual turnover of up to Rs. 100 crore would be eligible for GECL funding under the Scheme.
- ✓ The amount of GECL funding to eligible MSME borrowers either in the form of additional working capital term loans (in case of banks and FIs), or additional term loans (in case of NBFCs) would be up to 20% of their entire outstanding credit up to Rs. 25 crore as on 29th February, 2020.
- ✓ The entire funding provided under GECL shall be provided with a 100% credit guarantee by NCGTC to MLIs under ECLGS.
- ✓ Tenor of loan under Scheme shall be four years with moratorium period of one year on the

principal amount.

- ✓ No Guarantee Fee shall be charged by NCGTC from the Member Lending Institutions (MLIs) under the Scheme.
- ✓ Interest rates under the Scheme shall be capped at 9.25% for banks and FIs, and at 14% for NBFCs.

Conclusion

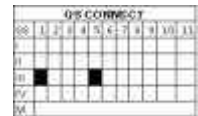
In view of the critical role of the MSME sector in the economy and in providing employment, the proposed Scheme is expected to provide much needed relief to the sector thereby enabling MSMEs to meet their operational liabilities and restart their businesses. By supporting MSMEs to continue functioning during the current unprecedented situation, the Scheme is also expected to have a positive impact on the economy and support its revival.

PEPPER IT WITH
MUDRA, Stand up India, Start
up India, DBT

CKP Cooperative Bank

News Excerpt

The Reserve Bank of India suspended operations of the CKP Co-operative Bank and cancelled its license on account of its “adverse and unsustainable” financial position.



Pre-Connect

- The Mumbai-based bank had a loan book of Rs 158 crore and deposits of Rs 486 crore. It had a negative net worth of Rs 239 crore, according to the latest figures available.
- The financial position of the bank is highly adverse and unsustainable.
- There is no concrete revival plan or proposal for merger with another bank. Credible commitment towards revival from the management is not visible.
- The bank will now be liquidated.
- 99.2 % of the CKP Co-operative Bank's 1.32 lakh customers have accounts with funds less than Rs 5 lakh, and they will be eligible for full recovery under the DICGC scheme when the bank is liquidated.
- The limit was increased recently from Rs 1 lakh under the Deposit Insurance and Credit Guarantee Corporation scheme.
- The central bank had prohibited it from taking deposits and issuing new loans in April 2014 after it found lapses in its administration. Withdrawals were capped. The board was superseded and a new administration was installed.

Analytica

- The bank failed to meet the regulatory requirement of maintaining a minimum capital adequacy ratio of 9% and reserves.

Deposit Insurance and Credit Guarantee Corporation (DICGC)

- ❖ It is a wholly owned subsidiary of Reserve Bank of India. It was established on 15 July 1978 under the Deposit Insurance and Credit Guarantee Corporation Act, 1961 for the purpose of providing insurance of deposits and guaranteeing of credit facilities.
- ❖ Union Finance Minister Nirmala Sitharaman in her budget speech 2020 has proposed to hike the bank deposit insurance in scheduled commercial banks to Rs 5 lakh per depositor from the current Rs 1 lakh.
- ❖ As per current DICGC rules, each depositor in a bank is insured up to Rs 5 lakh for both the principal and interest amount on deposits held by him in that particular bank.
- ❖ This includes all deposits held by a person in current account, savings account, fixed deposits and so on.
- ❖ If the total of all the deposits held by an individual in a single bank exceed Rs 5 lakh, then he/she will be able to get only Rs 5 lakh inclusive of principal and interest amount if the bank goes bankrupt.

Recent SC judgement on SARFAESI Act and Cooperatives

- A five-judge Constitution Bench of the Supreme Court (SC) ruled that all co-operative banks in the country could make use of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act (Sarfaesi) to make recovery against defaulting persons.
- In 2013, the Gujarat High Court had, while hearing a challenge to the amendment of Banking Regulation Act of 1949, to include cooperative societies as financial institutions, ruled it null and void.

SARFAESI Act

- Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002 lets the banks as well as other financial institutions of India auction commercial or residential properties for the purpose of loan recovery.
- ARC, the first asset reconstruction company, was established under this act.
- The Act details the procedures for NPAs' transfer to the asset reconstruction companies for the purpose of asset reconstruction.**
- The Act confers powers to the financial institutions to take custody of the immovable property, which is charged or hypothecated, for debt recovery.
- The Act imposes the security interest without any intervention from the court.

Conclusion

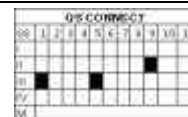
With the cancellation of license and commencement of liquidation proceedings, the process of paying the depositors of The CKP Co-operative Bank Ltd., Mumbai, as per the DICGC Act, 1961 will be set in motion.

PEPPER IT WITH
PCA, BASEL III

New Development Bank

News Excerpt

Union Minister of Finance & Corporate Affairs attended the 5th Annual Meeting of Board of Governors of New Development Bank through video-conference in New Delhi.



Pre-Connect

New Development Bank (NDB)

- At the fourth BRICS Summit in New Delhi (2012), the leaders of Brazil, Russia, India, China and South Africa considered the possibility of setting up a new Development Bank to mobilize resources for infrastructure and sustainable development projects in BRICS and other emerging economies, as well as in developing countries.
- During the sixth BRICS Summit in Fortaleza (2014), the leaders signed the Agreement establishing the New Development Bank (NDB).
- In the Fortaleza Declaration, the leaders stressed that the NDB will strengthen cooperation among BRICS and will supplement the efforts of multilateral and regional financial institutions for global development, thus contributing to collective commitments for achieving the goal of strong, sustainable and balanced growth.

BRICS

- ❖ Coordination between Brazil, Russia, India and China (BRIC) began informally in 2006, with a working meeting of the foreign ministers of the four countries on the sidelines of the United Nations General Assembly.
- ❖ Since the first summit in 2009, BRICS has significantly expanded its activities in several fields, but it was the financial field that guaranteed greater group visibility from the outset.
- ❖ In 2011 South Africa became part of the grouping, adding the "S" to the acronym, now BRICS.
- ❖ BRICS cooperation led to the launching of the first two institutions of the mechanism: the New Development Bank (NDB) and the Reserve Contingent Arrangement (RCA).

- The Bank shall have an initial authorized capital of US\$ 100 billion.
- The initial subscribed capital shall be US\$ 50 billion, equally shared among founding members.
- The first President of the Bank was from India. The headquarters of the Bank is located in Shanghai. The New Development Bank Africa Regional Center is established in South Africa concurrently with the headquarters.

Analytica

5th Annual Meeting Highlights

- NDB has so far approved 14 projects of India for an amount of \$ 4,183 million.
- **India commended the NDB's efforts in establishing itself as a credible Global Financial Institution, delivering its mandate successfully by taking more sustainable and inclusive approach.**
- **India appreciated NDB's effort on fast tracking of financial assistance of about \$5 billion to BRICS countries including Emergency Assistance of \$1 billion for India to combat COVID-19 pandemic.**
- India suggested that, assistance under this facility to be enhanced to \$10 billion.
- **Prime Minister Shri Narendra Modi's initiative of creating a COVID-19 Emergency Fund and India's efforts in supplying critical medicine to the needy countries to tackle the COVID-19 was mentioned in the meeting.**
- The Finance Minister of Brazil thanked India for the timely help it received from India in the form of critical drugs.
- India encouraged NDB to take appropriate actions to join G-20 forum along with other Multilateral Development Bank (MDBs)/International Financial Institutions (IFIs).

PEPPER IT WITH
AIIB, G-20, G-8, ADB

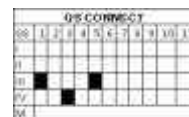
Conclusion

India urged NDB to follow innovative practices in supporting the BRICS nations for achieving their Sustainable Development Goals.

Sports as an Industry

News Excerpt

Aiming to further bolster the sports activities, by attracting investment, sports have been accorded industry status in Mizoram, first state in India to do so.



Pre-Connect

Advantages of Industry status

- It aims to invest more in sports for the generation of employment and increasing value. The industry status should help meet the requirements of sportspersons and others involved in the sector.
- Sports investors and promoters will benefit from it but the sportspersons will be the ultimate beneficiaries.
- The status would ensure sustainability, proper registration and management of sports.

Sports Industry

- ❖ **India's sports industry witnessed a dramatic jump in the last decade.** Today, sports like cricket, football, kabaddi, and badminton, among others, are rewriting the growth of the sports industry in India.
- ❖ Being labour intensive in nature, the industry provides **employment to more than 500,000 people.** India's sporting goods are popular around the world and have made a mark in the global sports goods market.
- ❖ The domestic industry exports nearly 60 per cent of its total output.
- ❖ Total sports goods exports for 2018-19 stood at US\$ 313.48 million and reached US\$ 122.76 million in 2019-20 (till July 2019).
- ❖ Indian sports products have been exported for global events.

Sports Goods Export Promotion Council (SGEPC) promotes the export of sports goods and toys from India. SGEPC represents the leading 200 manufacturers and exporters of sports goods and toys in India.

- Sports and its infrastructure will be eligible for availing of subsidy, loan and assistance from private and government sources.
- Mizoram has a pool of footballers playing for premier clubs across the country. Besides winning Indian Super League, one of the top premier football leagues in India, the state has done well in hockey and weightlifting in recent years.
- As sports are a state subject, the central government has limited role in this regard.
- Sports should not be considered just as an entertainment and enjoyment. With the involvement of many men and women in different sports, it can curb various societal negativities specially misuse of drugs.



Analytica

The nucleus of the sports industry in India is in and around the states of Punjab and Uttar Pradesh.

Jalandhar in the state of Punjab and Meerut in the state of Uttar Pradesh account for nearly 75 per cent of total production. Together, the two towns house more than 3,000 manufacturing units and 130 exporters.

The Indian sports goods industry also has a presence in the cities of Mumbai, Kolkata and Chennai, albeit at a lower scale.

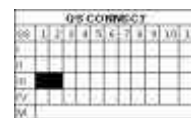
Conclusion

The great initiatives such as Indian Premier League (Cricket), Hockey India League, Indian Badminton League, Prokabadi, Indian Super League (Football) and professionalization of Heritage sports events such as Goti, GilliDanda, Lagori, Kilithatt, GattaGusthi are changing the old face of Indian sports.

Fiscal Deficit and related terms

News Excerpt

With the government's Rs 20 lakh crore stimulus package, the country's fiscal deficit is likely to be more than double to 7.9 per cent in the current financial year, according to an SBI research report.



Pre-Connect

- Revenue Deficit- Revenue deficit arises when the **government's** revenue expenditure exceeds the total revenue receipts. This represents that the **government's own** earnings are not sufficient to meet the day-to-day operations of its departments. Revenue deficit turns into borrowings when the government spends more than what it earns and

Financial Stability and Development Council (FSDC)

- ❖ With a view to strengthen and institutionalize the mechanism for maintaining financial stability and enhancing inter-regulatory coordination, Indian Government has setup an apex-level Financial Stability and Development Council (FSDC).
- ❖ The first meeting of the Council was held on 31st December, 2010.
- ❖ The Chairman of the FSDC is the Finance Minister of India and its members include the heads of the financial sector regulatory authorities (i.e, SEBI, IRDA, RBI, PFRDA and FMC), Finance Secretary and/or Secretary, Department of Economic Affairs (Ministry of Finance), Secretary, (Department of Financial Services, Ministry of Finance) and the Chief Economic Adviser.
- ❖ The commodities markets regulator, Forward Markets Commission (FMC) was added to the FSDC in December 2013 subsequent to shifting of administrative jurisdiction of commodities market regulation from Ministry of consumer Affairs to Ministry of Finance.

has to resort to the external borrowings. Revenue Deficit: Total revenue receipts – Total revenue expenditure.

- Fiscal Deficit: The difference between total revenue and total expenditure of the government is termed as fiscal deficit. It is an indication of the total borrowings needed by the government. While calculating the total revenue, borrowings are not included.
- Gross fiscal deficit (GFD) is the excess of total expenditure including loans net of recovery over revenue receipts (including external grants) and non-debt capital receipts.
- Net fiscal deficit is the gross fiscal deficit less net lending of the Central government.

Deficit financing is the practice in which a government spends more money than it receives as revenue, the difference being made up by borrowing or minting new funds.

Analytica

- After taking into account cash outflow of COVID measures as well as the previous and the recent excise duty hike and DA freeze (amounting to around 0.8 per cent of GDP), the revised baseline fiscal deficit (excluding extra budgetary resources (EBR)) is 7.9 per cent of the revised GDP in FY21 from 3.5 per cent earlier, owing to lower revenues and higher expenditure against the backdrop of COVID-19.
- It estimated a 4.5 per cent direct impact on fiscal deficit purely because of revenue shortfall / automatic fiscal stabilizer and a 0.9 per cent indirect effect because of GDP change.
- The cumulative actual fiscal impact is only around Rs 1.14 lakh crores or 0.6 per cent of GDP. The government has announced an additional borrowing of around Rs 4.2 lakh crore or 2.1 per cent of GDP.
- The government debt as a percentage of GDP has been on a rising trend since FY11. In the last eight years, government debt has risen from 62 per cent in FY11 to 66 per cent in FY19. During the same time period interest rate (repo rate) has declined from as high as 8.5 per cent to as low as 6 per cent.

Conclusion

In FY20, the repo rate was reduced further to 4.4 per cent. This raises related questions: how much government debt can India sustain? Does the decline in nominal interest rates mean that the government can safely borrow more.

PEPPER IT WITH
CSO, Repo, Reverse Repo

For FRBM Act/N.K.Singh Report refer April Current Connect Page 43/44



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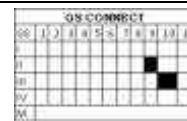
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INTERNATIONAL RELATION

MISSION SAGAR

News Excerpt

As part of the Government's outreach amidst the ongoing pandemic, Indian Naval Ship Kesari has departed for Maldives, Mauritius, Seychelles, Madagascar and Comoros, to provide eatables, medicines to treat COVID19 related Medicines including HCQ Tablets and Special Ayurvedic Medicines with Medical Assistance Teams embarked, on 10 May 20.



Highlights

- INS Kesari will deliver consignments of medicines to Mauritius, Madagascar, Comoros and Seychelles and about 600 tonnes of food to Maldives. A special consignment of Ayurvedic medicines is also sent to Mauritius.
- India and Maldives are close maritime neighbours with strong and extremely cordial defence and diplomatic relations. A team of medical personnel was also dispatched to Maldives to augment the preparedness of the Maldivian Government to fight this crisis.
- The mission carried on board two medical assistance teams, consignments of medicines and food.
- The medical teams will be deployed in Mauritius and Comoros, helping their governments deal with the pandemic and, in the case of Comoros, with dengue fever also.
- The consignments meant for Madagascar and Comoros also includes Hydroxychloroquine tablets, which have already been sent earlier to Mauritius, Maldives and Seychelles.
- **The mission comes on the heels of 'Operation Samudra Setu' which is a part of New Delhi's efforts to repatriate citizens stranded abroad.**

Analytica

- The operation, named 'Mission Sagar' (PM Modi's concept of SAGAR — Security and Growth for All in the Region), also displays rising salience of the IOR in MEA's policy-making.
- This deployment as 'Mission Sagar', is in line with India's role as the first responder in the region and builds on the excellent relations existing between these countries to battle the COVID19 pandemic and its resultant difficulties.
- The deployment is in consonance with the Prime Minister's vision of Security and Growth for All in the Region **'SAGAR'**.
- It highlights the importance accorded by India to relations with her neighbouring countries and further strengthens the existing bond.
- This is the first time that a single assistance mission is covering all island countries of the western Indian Ocean in one go — except Sri Lanka, for which a second set of medicines have been airlifted.
- **This move exhibits the contiguity of the government's Indian Ocean policy and it also implicitly conveys the inclusion of Madagascar and Comoros as part of the 'Indian Ocean vision'.**

SAGAR (Security and Growth for All in the Region)

- ❖ India's vision for the Indian Ocean Region (IOR) commonly known by its acronym -SAGAR.
 - ❖ It an inclusive vision with politico-economic-security cooperation and respect for international maritime laws.
- Constituent Elements of SAGAR Include:
- ❖ Enhancing capacities to safeguard land and maritime territories and interests.
 - ❖ Deepening economic and security cooperation in the littoral.
 - ❖ Promoting collective action to deal with natural disasters and maritime threats like piracy, terrorism and emergent non-state actors.
 - ❖ Working towards sustainable regional development through enhanced collaboration.
 - ❖ Engaging with countries beyond our shores with the aim of building greater trust and promoting respect for maritime rules, norms and peaceful resolution of disputes

- In line with its time-tested role as the first responder in the region, India has already supported the efforts of the Governments of Maldives, Sri Lanka, Mauritius and Seychelles by providing them consignments of medicines.
- It conveys not only “readiness to deploy manpower” but also the “confidence and faith in Indian expertise”. The assistance provided is ‘Request Based’ but the manner in which the operations have been carried out display India’s readiness and capability to step up even as it has challenges at home.

Conclusion

After years of a lack of consistent engagement, the region is now getting the same importance as immediate neighbours. IOR countries were among the very first to receive India’s Covid assistance, which includes ‘Operation Sanjeevani’ in Maldives and special Air India flights with medicine consignments to Sri Lanka, Mauritius and Seychelles. This move indicates the enhanced focus on the Indian Ocean Region in the wake of an assertive and proactive China.

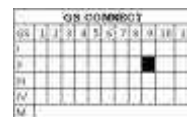
PEPPER IT WITH

Operation Sanjeevani, Operation Samudra Setu, IORA, Vande Bharat Mission, IOC

G20 Virtual Trade & Investment Ministers Meeting

News Excerpt

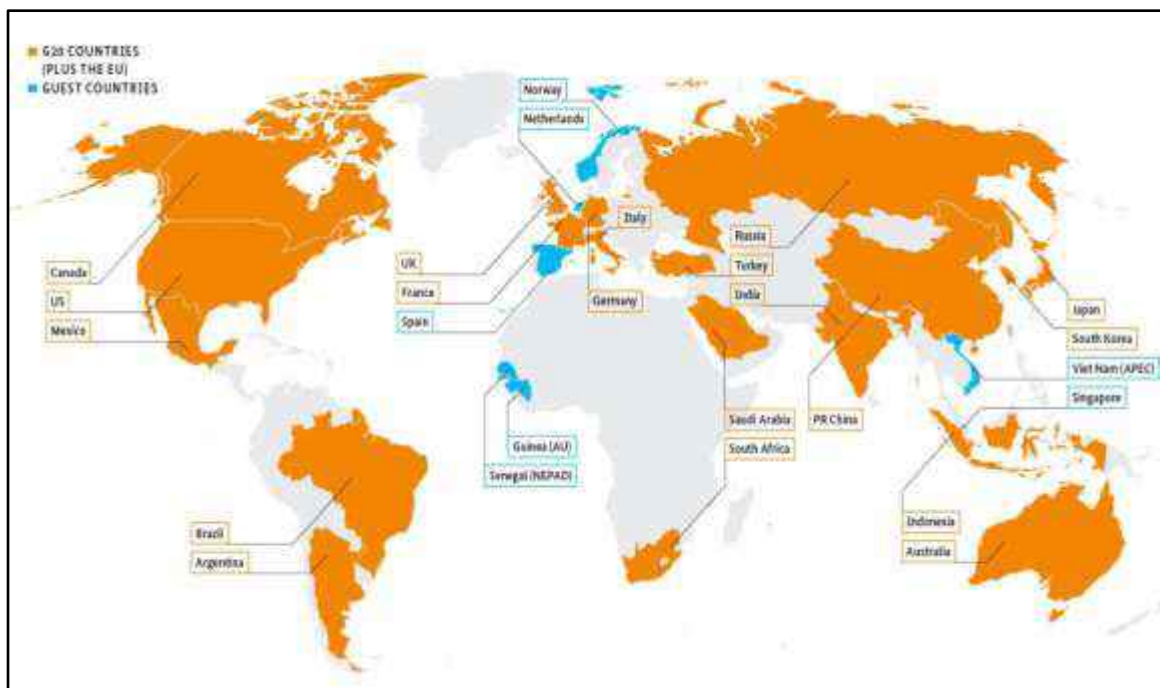
Second G20 Virtual Trade & Investment Ministers Meeting was held through video-conferencing in May 2020. The meeting was convened by Saudi G20 Presidency to discuss ‘**G20 Actions to Support World Trade and Investment through the COVID-19.**’



Highlights

G-20

- ❖ The Group of Twenty, or the G20, is the premier forum for international economic cooperation. The G20 brings together the leaders of both developed and developing countries from every continent.
 - ❖ The G20 is a grouping of 20 influential members across the globe including Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States and the European Union.
 - ❖ Collectively, G20 members represent around 80% of the **world’s economic output**, two-thirds of global population and three-quarters of international trade.
 - ❖ Throughout the year, representatives from G20 countries gather to discuss financial and socioeconomic issues.
 - ❖ Originated in 1999 at the level of Finance Ministers and Central Bank Governors, the G20 gathered for high-level discussions on macro-financial issues. In the wake of the 2008 global financial crisis, the G20 was elevated to include the leaders of member countries.
 - ❖ **The first G20 Leaders’ Summit** took place in Washington D.C. in November 2008. Consequently, the G20 agenda expanded beyond macro-financial issues, to include socio-economic and development issues.
 - ❖ In 2016, the Trade and Investment Working Group (TIWG) was established under the Chinese G20 Presidency and since then has been carried on by Germany in 2017 and Argentina in 2018.
- The meeting aimed to address progress made by the Trade and Investment Working Group and reach an agreement on short-term and long-term collective plans of action aimed to minimize the impact of the pandemic on global trade, investment and supply chains.
 - Trade and Investment Ministers of the G20 will address the progress made by the Trade and Investment Working Group (TIWG).
 - Particularly, Ministers discussed the “G20 Actions to Support World Trade and Investment through the COVID-19 Pandemic” developed by the TIWG.



- These designed actions aim to alleviate the impact of the pandemic in the short run; and support the reform of the multilateral trading system, build resilience in global supply chains; and strengthen international investment over the long run.

India in the Meeting

- India called for an agreement to enable the use of TRIPS (Trade Related Intellectual Property Rights) flexibilities to ensure access to essential medicines, treatments and vaccines at affordable prices.
- The Indian government asked the G20 members to first focus on immediate and concrete actions that can ease the distress.
- India has asked to work on an agreement that would enable countries to use the flexibilities provided in TRIPS to ensure access to essential medicines, treatments and vaccines at affordable prices to fight the Covid-19.
- India asked members to provide diagnostic and protective equipment and healthcare professionals across borders.

Food Security

- ✓ India pointed out that doing away with the policy instrument of export restrictions is not a **panacea that will guarantee access to medical products and food for all**. “In fact, such a step is likely to lead to a flight of these critical products to the highest bidder, making them inaccessible to the resource-poor,”
- ✓ India said that the more effective and lasting way to ensure food security of the most vulnerable, would be by agreeing to eliminate the historic asymmetries in the Agreement on Agriculture.
- ✓ India also called for a long-standing Ministerial mandate to establish permanent, adequate and accessible disciplines on public stockholding for food security purposes by the next Ministerial Conference of the World Trade Organisation.

PEPPER IT WITH

TRIPS, Agreement on Agriculture, Green, Blue and Amber Boxes, Export restrictions.

Conclusion

The demand for enabling the use of TRIPS flexibilities is significant as such an agreement will make it possible for nations to issue compulsory licences to make generic copies of essential patented medicines.

India and Afghanistan Peace Process (Role of Taliban)

News Excerpt

India welcomed the ceasefire between the Afghan government and the Taliban over three days covering the festival of Eid. India also said that it will “continue to be guided” by its friendship with the Afghan people, remaining non-committal on renewed questions of whether it would open direct talks with the Taliban.

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Pre-Connect

- The Afghan peace process initiated in 2018, marred with episodic halts, finally witnessed an agreement between the US and Taliban on February 29, 2020, in Doha.
- Both signatories agreed to some core conditions and compromises to be made.
- The peace deal will enable the US and NATO to withdraw troops in 14 months. India attended the signing ceremony in Doha.
- The main counter-terrorism commitment by the Taliban is that **“Taliban will not allow any of its members, other individuals or groups, including Al-Qaeda, to use the soil of Afghanistan to threaten the security of the United States and its allies”**.
- Other major points of the deal include removal of UN sanction on Taliban leaders, Ceasefire and Prisoners release.
- Recently, US Special Representative for Afghanistan reconciliation visited India as a part of his three nation tour where he **sought support “for an immediate reduction in violence, accelerated timeline for the start of intra-Afghan negotiations, and cooperation among all sides in addressing the Covid-19 pandemic in Afghanistan.”**

India and Taliban

- ❖ India and the Taliban have had a bitter past. New Delhi nurses bitter memories from the IC-814 hijack in 1999, when it had to release terrorists — including Masood Azhar.
- ❖ Masood Azhar founded Jaish-e-Mohammed that went on to carry out terror attacks on Parliament (2001), in Pathankot (2016) and in Pulwama (2019).
- ❖ The Taliban perceived India as a hostile country, as India had supported the anti-Taliban Northern Alliance in the 1990s.
- ❖ India never gave diplomatic and official recognition to the Taliban when it was in power during 1996-2001. In recent years, as US-Taliban negotiations picked up momentum, New Delhi has been in touch with all stakeholders.
- ❖ But its foreign policy establishment has shied away from engaging with the Taliban directly. Even when former envoy to Afghanistan Amar Sinha and former envoy to Pakistan T C A Raghavan were sent as **“non-official representatives” to talks with the Taliban in Moscow in November 2017, they went as “observers” and did not engage in direct talks, although some conversations are learnt to have taken place on the sidelines.**
- ❖ The Taliban of today is also quite different and there is a diversity of views within the apparently monolithic looking structure.
- ❖ Their spokesperson has indicated that they do see the value in having stable ties with neighbours **including India and has welcomed India’s “contribution and cooperation in the reconstruction of future Afghanistan.”**
- ❖ **Last year after India’s decision to revoke Article 370, the Taliban had underlined the India-Pakistan dispute over Kashmir should not be linked with the situation in Afghanistan, distancing itself from the Pakistani criticism of the Indian move.**

Analytica

- The U.S. Special envoy for Afghanistan Reconciliation suggested that India should speak directly to the Taliban. This has led to a renewal of interest in whether India will shift its stand on talks with the Taliban, despite continued violence by the group.
- India has been cautious in its approach so far even though it had welcomed the initial pact. It has put its weight behind the Ghani government and would want the Taliban to recognise the democratic structures in Afghanistan before any kind of engagement with the Taliban can be envisioned.
- As the Taliban have come closer to power, they too, like other Afghan stakeholders, have

recognised the need to engage with New Delhi.

- **India's substantive role in Afghanistan as an** economic player and as a builder of key capacities will be essential, especially after the US departs.
- Even during the Covid-19, India has been supplying food and medical aid to Afghanistan on a regular basis, following its longstanding policy of helping ordinary Afghans.
- **India has continuously reiterated its consistent support for an "independent, sovereign, democratic, pluralistic and inclusive" Afghanistan in which interests of all sections of society are preserved.**
- **India supports for "enduring and inclusive" peace and reconciliation which is "Afghan-led, Afghan-owned and Afghan-controlled".**

Way Forward

- ✓ The comments by U.S. Special envoy for Afghanistan Reconciliation has led to a renewal of interest in whether India will shift its stand on talks with the Taliban, despite continued violence by the group.
- ✓ India has always dealt only with the authority in power, and talks with the Taliban would be premature at this point.
- ✓ **If talks with the Taliban were offered, then they would have to be on New Delhi's terms, including Taliban commitments on India's strategic projects, and Chabahar port, as well as the safety of minorities, women's education, and most of all on terrorism, where no Afghan soil could be used by anti-India groups.**
- ✓ The Taliban could make progress with India if it offers to bring those of its officials who colluded with the terrorists on board IC-814 in December 1999, to justice.
- ✓ The political system in Kabul remains bitterly divided, making it difficult for a country like India that wants to emphasise the importance of institutions for the future of Afghanistan.
- ✓ The Taliban is yet to distance itself from terror groups such as Al-Qaeda, Lashkar-e-Taiba and Jaish-e-Mohammed that have a presence in Afghanistan and target India.
- ✓ Once the US troops begin to depart from the war torn nation, Indian projects and broader interests might become the soft targets for Pakistan and its proxies.

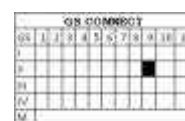
Conclusion

Much will depend on how the intra-Afghan dialogue proceeds ahead but it seems clear that the Taliban will be part of the Afghan political structure in some way very soon. Even as they recognise that New Delhi cannot be merely sidelined in Afghanistan because Pakistan says so, India too will have to accept that despite its history with the Taliban and continuing concerns, it would need a pro-active engagement policy if its considerable equities in Afghanistan and the wider region are to be preserved.

Shanghai Cooperation organization FMs Meet

News Excerpt

External Affairs Minister S Jaishankar took part in an extraordinary virtual meeting of the Foreign Ministers of the eight member Shanghai Cooperation Organisation (SCO).



Highlights

- The eight countries discussed sharing information on best practices on containing COVID-19, particularly in the medicine, medical equipment, and pharmaceutical sector.
- The SCO states agreed on a joint declaration that focused on creating a plan of action that could be adopted at the leader's level summit on collaboration for vaccine development and methods of disease treatment.
- India expressed its readiness to share information, expertise and best practices to the SCO Member States and highlighted the initiatives and various decisive steps taken by India in the wake of the pandemic, including the US \$ 266 billion economic package announced.

- India underlined that the security challenges the world face today are not linked by physical or political boundaries.
- Terrorism continues to be the overwhelming threat to security and stability in the SCO region and would require collective action, India pointed out. It also underscored on the need for SCO to work towards economic revival.

Shanghai Cooperation Organisation (SCO)

- ❖ The Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation, the creation of which was announced on 15 June 2001 in Shanghai (China).
- ❖ The SCO, which has its headquarters in Beijing, holds summits of heads of states as well as heads of government meetings annually in member countries.
- ❖ The SCO comprises eight member states, namely India, Kazakhstan, China, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan.
- ❖ The SCO has four observer states, namely Afghanistan, Belarus, Iran and Mongolia. It has six dialogue partners, namely Azerbaijan, Armenia, Cambodia, Nepal, Turkey and Sri Lanka.
- ❖ The SCO, as an organization, covers three-fifths of the Eurasian continent and nearly half of the human population.
- ❖ India will host the 19th council of heads of government of the SCO next year, the first such high level meeting of the eight-member grouping to be organised by New Delhi after its admission into the grouping in 2017.

- The SCO FMs meet happened days after the BRICS FMs meet. During the BRICS FMs meet, all the countries agreed to set up a \$15 billion loan instrument to finance projects for the economic rebuilding of BRICS countries due to COVID-19.
- Russia called for strengthening the anti-terror mandate of SCO and the security mechanism.

PEPPER IT WITH
BRICS FMs Meet, INSTC, BRI,
Ashgabat Agreement, SAARC virtual
conference, SCO Development Bank
(SDB), SCO Development Fund (SDF)

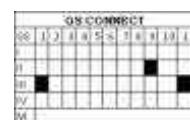
Conclusion

In the midst of the meet India remarked that some countries are "busy" in spreading terrorism while the world is fighting against corona virus. Similar remarks were made by the Prime Minister at the virtual Non-Aligned Movement summit earlier in May.

RCEP and India

News Excerpt

As the deadline for a response to a fresh proposal of India rejoining negotiations on the ASEAN-led Regional Comprehensive Economic Partnership (RCEP) ran out on May 15, the government indicated that global post **Coronavirus concerns over China had strengthened India's opposition to the grouping.**



Pre-Connect

- Recently members of the RCEP have offered India a package to return to the negotiating table, taking into account the country's concerns over tariff base rates and special trade safeguards.
- The letter sent by the RCEP's Trade Negotiating Committee (TNC) Chairperson had an offer to reconsider India's objections to giving market access for a "limited number of products", if India would rejoin the talks.
- The Prime Minister had earlier announced India's decision to quit the grouping, which includes the 10 ASEAN nations, Australia, China, Japan, New Zealand and South Korea in November, citing lack of protection for India's agricultural and other sectors.
- After pulling out of the grouping, India skipped at least two separate meetings it was invited to, including one in Bali in February, and a virtual RCEP-TNC meeting in April.

Analytica

Why India Refused to Join RCEP?

- In November 2019, India decided to hold off on signing the RCEP until "significant

outstanding issues” were resolved, even as all other 15 countries involved in the negotiations stated that they were ready to sign the mega trade deal in 2020.

- Unsatisfactory negotiations **pertaining to India's trade with China** — India has an over \$50 billion trade deficit — is one of the major reasons for New Delhi not joining in at that stage.
- All the RCEP participating countries, except for India, have **“concluded”** text-based negotiations for all 20 chapters of the proposed deal, as well as their market access issues — and they are expected to be ready to ink the pact in 2020.
- Key issues that have prevented India from **coming on board include “inadequate” protection against surges in imports.**
- This is a major concern for India, as its industry has voiced fears that cheaper products **from China would “flood” the market.**
- India had been seeking an auto-trigger mechanism that would allow it to raise tariffs on products in instances where imports cross a certain threshold.
- India has also not received any credible assurances on its demand for more market access, and its concerns over non-tariff barriers.
- RCEP participants like China are known to have used non-tariff barriers in the past to prevent India from growing its exports to the country.
- During negotiations, it was also not able to get a favourable outcome on its demands on the base year that would be used to reduce the tariffs on the products.
- Industry has argued that some domestic sectors may take a hit due to cheaper alternatives from other participant countries e.g. the dairy industry was expected to face stiff competition from Australia and New Zealand. Similarly, steel and textiles sectors have also demanded protection.
- It is Important to note that India has FTA with the ASEAN countries since 2009.

‘Make in India’ policy and RCEP

- India has a trade deficit with 11 of the 15 RCEP countries.
- **India's experience of trade pacts in the past was that they had “hollowed out” manufacturing in the country, and would hamper the government's renewed commitment to the ‘Make in India’ policy.**
- According to some trade experts, India could also **use the RCEP to generate “optimism” amongst** Indian companies, given the uncertainty over demand and consumption due to the pandemic.
- Members of the RCEP offered India a package to return to the negotiating table, taking into account **the country's concerns over tariff base rates and special trade safeguards.**
- Australia and Japan have been at the forefront of efforts to convince India to rejoin the

Regional Comprehensive Economic Cooperation (RCEP)

- ❖ The RCEP is a trade deal that is being negotiated between 16 countries.
- ❖ They include the 10 Association of Southeast Asian Nations (ASEAN) members (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and the six countries with which the bloc has free trade agreements (FTAs) — India, Australia, China, Korea, Japan, and New Zealand.
- ❖ The purpose of the deal is **to create an “integrated market”** spanning all 16 countries. This means that it would be easier for the products and services of each of these countries to be available across the entire region.
- ❖ **The RCEP is billed to be the “largest” regional trading agreement yet — the countries involved account for almost half of the world's population, contribute over a quarter of world exports and make up around 30% of the global Gross Domestic Product (the value of all goods and services produced in a year).**

PEPPER IT WITH

Make in India, Tariff and NonTariff Barriers, Asia Africa Growth Corridor, East Asia Summit, ASEAN-India FTA

RCEP as a possible counterweight to China in the grouping.

Way Forward

- ✓ Once the world conquers the COVID19, there will be a tectonic shift in the global balance of power.
- ✓ India can reconsider joining RCEP on new trade terms and strengthen the Asia Africa Growth Corridor (AAGC) and other regional forums.
- ✓ While global institutions will register a negative growth, some of the regional trade blocs are gaining by trade.
- ✓ However, it has to be noted that “If anything the COVID-19 experience, and the experience of countries that have been overly dependent on imports from China or other countries” would have reinforced and revalidated the decision to stay out of RCEP.

West Bank and Israel

News Excerpt

Israel's Parliament (Knesset) swore in its new unity government in May 2020 led by Prime Minister Netanyahu and his former rival Benny Gantz, ending the longest political crisis in the nation's history. Addressing the Knesset before the vote, Mr. Netanyahu vowed to push on with controversial plans to annex large parts of the occupied West Bank.

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Pre-Connect

- The West Bank, a patch of land about one and a half times the size of Goa, was captured by Jordan after the 1948 Arab-Israeli War. Israel snatched it back during the Six Day War of 1967.
- It has built some 130 formal settlements in the West Bank, and a similar number of smaller, informal settlements have mushroomed over the last 20-25 years.
- The United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2011 voted to admit Palestine as a full member of the Paris-based agency.
- Over 4 lakh Israeli settlers — many of them religious Zionists who claim a Biblical birthright over this land — now live here, along with some 26 lakh Palestinians.
- In 2017, the US formally recognized Jerusalem as the capital of Israel, reversing nearly seven decades of American foreign policy.

At a Glance

- ❖ Politics: Palestinians have been striving for self-determination but have achieved only limited control over their affairs. Relations with the Israeli authorities have been marked by violent conflict
- ❖ Economics: The economy is fragmented and subject to Israeli restrictions. Much of the population is dependent on food aid
- ❖ Foreign relations: The Palestinian Authority is making efforts to have itself recognised by various UN and international agencies.

Analytica

Are these Israeli settlements illegal?

- To the vast majority of the countries, yes. The United Nations General Assembly, the UN Security Council, and the International Court of Justice have said that the West Bank settlements are violative of the Fourth Geneva Convention.
- Under the Fourth Geneva Convention (1949), an occupying power “shall not deport or transfer parts of its own civilian population into the territory it occupies”.



- Under the Rome Statute that set up the International Criminal Court in 1998, such **transfers constitute war crimes, as does the “extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly”**.
- Under the Oslo Accords of the 1990s, both Israel and the Palestinians agreed that the status of settlements would be decided by negotiations. But the negotiations process has been all but dead for several years now.
- Israel walked into East Jerusalem in 1967, and subsequently annexed it. For Israel, Jerusalem is non-negotiable. The Palestinians want East Jerusalem as the capital of their **future state. Most of the world’s nations look at it as occupied territory.**

What was the American stand earlier?

- In 1978, when Jimmy Carter was President, the State Department concluded that the Israeli settlements were **“inconsistent with international law”**.
- Later the United States took the line that the settlements were **“illegitimate”, not “illegal”, and** repeatedly blocked UN resolutions condemning Israel for them.
- In 2016, Obama broke with this policy — US did not veto a resolution that called for an end to Israeli settlements.
- In 2019, the US declared that the establishment of Israeli civilian settlements in the West Bank is not per se inconsistent with international law.
- The Trump administration has said it will support the annexation of West Bank territory — as long as Israel agrees to enter

Palestine History

- ✚ The war that followed Israel's declaration of independence in 1948 saw the former British mandate of Palestine partitioned between Israel, Trans-Jordan and Egypt.
- ✚ Hundreds of thousands of Palestinians fled or were forced out of their native land during the war, in what they call the “Nakba” or “Catastrophe”.
- ✚ The demand of these refugees and their descendants to return to their homes, remains one of the most fiercely debated aspects of the dispute with Israel.
- ✚ The Palestinian national movement gradually regrouped in the West Bank and Gaza, run respectively by Jordan and Egypt, and in refugee camps in neighbouring Arab states.
- ✚ The Palestine Liberation Organisation (PLO) emerged as its leading umbrella group shortly before the Six-Day War of 1967, during which Israel captured the West Bank, Gaza and East Jerusalem, and PLO conducted a protracted campaign of violence against Israel.
- ✚ The PLO under Yasser Arafat gradually won international recognition as the representative of the Palestinian people, culminating in the Oslo Accords with Israel in 1993.
- ✚ These accords established a Palestinian National Authority (PNA - also referred to as the Palestinian Authority, or PA) as an interim body to run parts of Gaza and the West Bank (but not East Jerusalem) pending an agreed solution to the conflict.
- ✚ The PNA functions as an agency of the PLO, which represents Palestinians at international bodies. It is led by a directly-elected president, who appoints a prime minister and government which must have the support of the elected Legislative Council.
- ✚ The Israeli occupation of the West Bank, with its continuing settlement building and military checkpoints, and Palestinian attacks, have slowed progress towards a final agreement and led many on both sides to dispute the worth of the Accords.
- ✚ Israel retains full control over bypass roads, settlements and the Jordan Valley, and makes incursions into urban areas against armed groups.
- ✚ In 2005, Israel completed the withdrawal of all its troops and settlers from the Gaza Strip but it retains control of the airspace, seafront and access - including deliveries of food and other goods - apart from the crossing with Egypt.
- ✚ In November 2012, the UN General Assembly voted to upgrade the status of the Palestinians to that of a “non-member observer state” - a move that allows them to take part in General Assembly debates and improves their chances of joining UN agencies.

peace talks with the Palestinians.

What impact will the change have?

- Those who support the right of Israelis to settle in the West Bank are likely to see the decision as an endorsement. It will boost Prime Minister Benjamin Netanyahu, who has promised sweeping annexations in the West Bank.
- With President Donald Trump facing election in November, Netanyahu and his nationalist base are eager to move ahead quickly with annexing portions of the West Bank.
- **Annexation is expected to appeal to Trump's pro-Israel evangelical supporters, but is also bound to trigger widespread international condemnation.**
- It would crush already faint Palestinian hopes of establishing a viable state alongside Israel, on lands Israel captured in the 1967 Mideast war.

PEPPER IT WITH

Two State Solution, Golan Heights, Gaza Strip, Oslo Accord, PLO

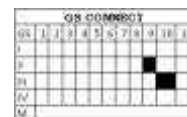
Conclusion

In an address to the Knesset, Mr. Netanyahu vowed to push on with controversial plans to annex large parts of the occupied West Bank and apply Israeli sovereignty over settlements. It may cause international uproar and inflame tensions.

Commonwealth Nations

News Excerpt

Dr. Harsh Vardhan, Union Minister of Health & Family Welfare participated in the **32nd Commonwealth Health Ministers' Meeting through Video Conferencing**, in May. The theme of the meeting was- Delivering a Co-ordinated Commonwealth COVID-19 response.



Pre-Connect

- The Commonwealth is a voluntary association of 54 independent and sovereign countries. **The Commonwealth is one of the world's oldest political associations of states. Its roots go back to the British Empire, when countries around the world were ruled by Britain.**
- It is home to 2.4 billion people, and includes both advanced economies and developing countries. 32 of its members are small states, including many island nations.
- Today any country can join the modern Commonwealth. The last country to join the Commonwealth was Rwanda in 2009.
- Since 1949 independent countries from Africa, America, Asia, Europe and the Pacific have joined the Commonwealth. Membership today is based on free and equal voluntary cooperation.
- The Commonwealth Secretariat was created in 1965 as an intergovernmental organisation to manage the Commonwealth's work.
- The Commonwealth Charter is a document of the values and aspirations which unite the Commonwealth.
- It expresses commitment of member states for the development of free and democratic societies and the promotion of peace and prosperity.
- The Charter also acknowledges the role of civil society in supporting the goals and values of the Commonwealth.

The Commonwealth is often described as a 'family' and at the heart of this family are 3 intergovernmental organisations:

- ❖ The Commonwealth Secretariat supports member countries to achieve the Commonwealth's aims.
- ❖ The Commonwealth Foundation supports people's participation in democracy and development.
- ❖ The Commonwealth of Learning promotes open learning and distance education.

Highlights

- Commonwealth Health Ministers have agreed to coordinate their response in tackling the pandemic. India will chair the next meet of Commonwealth Health Ministers in May 2021.
- The Ministers endorsed removing fees for coronavirus tests and treatment, especially for

migrants and refugees, as appropriate within national contexts, and creating a voluntary mechanism to share and distribute extra medical supplies, including ventilators and testing kits.

- They agreed on the need for solidarity and cooperation among Commonwealth countries and close working with the World Health Organization (WHO).
- The Ministers backed the need for unified action to recover from the economic turmoil while addressing critical health challenges and systems' vulnerability, particularly to recurring climate-related events.
- Ministers pledged to keep essential health services running for non-COVID-19 patients with a critical non-communicable or infectious disease.
- They agreed to work with Finance Ministers to promote sustainable strategies to finance the implementation of universal health coverage with a focus on providing healthcare to the vulnerable sections.
- Ministers presented effective national strategies to address the pandemic, which included a mass test, trace and isolate strategy, digital tools to monitor health status and track transmission routes and a clear communication line.

Conclusion

Facilitating universal and affordable access to all relevant medical products and technologies, both existing and new is the need of the hour to fight the pandemic COVID-19. These should be made available in a fair and equitable manner. It is critical to build and strengthen core capacities of developing countries particularly the least developed for future preparedness, response and resilience.

Indo China Border Dispute

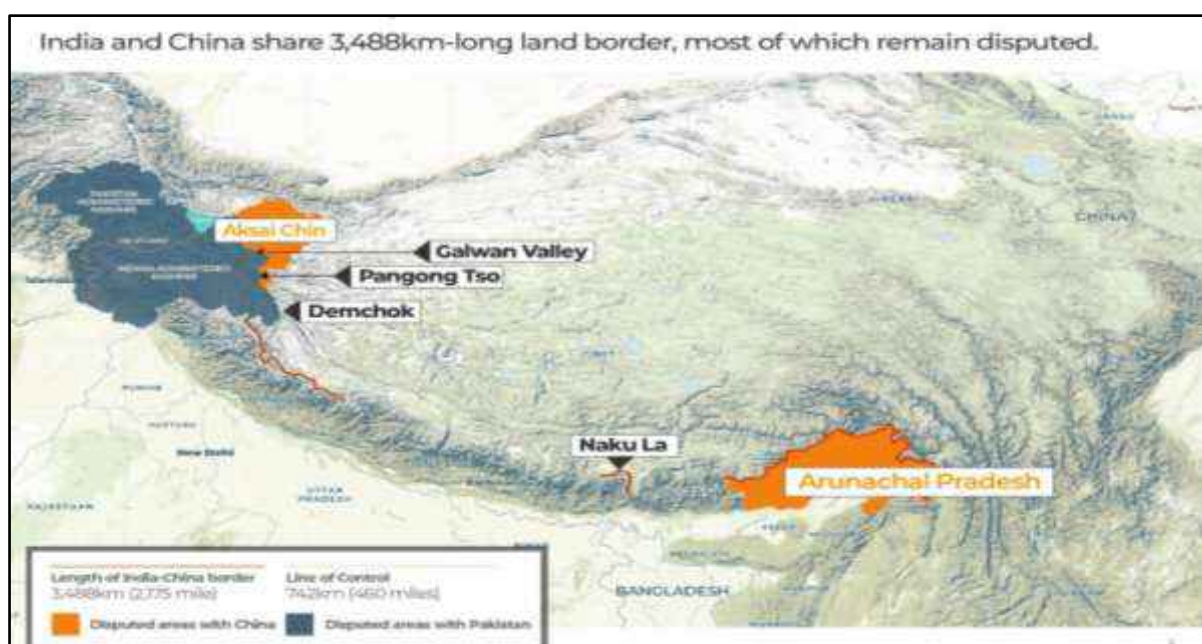
News Excerpt

The India-China border has been witnessing tensions, with incidents reported in at least four different locations along the Line of Actual Control (LAC). Chinese troops have bolstered their border control measures in the Galwan Valley in the Aksai Chin region of the Sino-India border.

ON CONNECT											
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Highlights

- On May 14, Indian Army Chief General Manoj Naravane said incidents at the Pangong lake

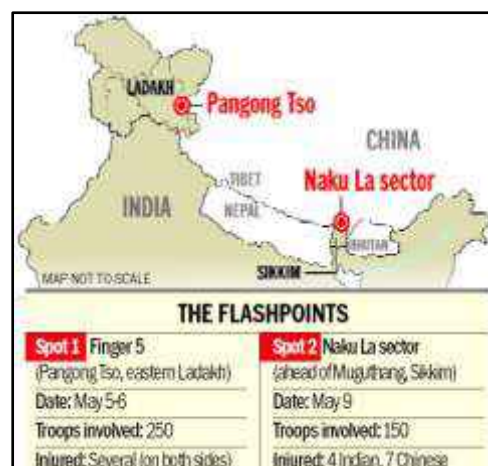


in Ladakh on May 5 and at Naku La in Sikkim on May 9 had led to injuries, caused by “aggressive behaviour on both sides”.

- There were two incidents at Eastern Ladakh and North Sikkim where aggressive behaviour by both sides resulted in minor injuries to troops post which both sides disengaged after dialogue and interaction at the local level.
- The Chinese troops significantly increased their presence in areas around Pangong Tso and even brought in additional boats to the lake.
- Stand-offs at two other spots in Ladakh, in the Galwan valley and in Demchok, have reportedly escalated with a build-up of troops by both sides.
- The stand-off in Galwan valley, was triggered by China moving in troops and equipment to stop construction activity by India.
- **India says this was well within India's side of the LAC. The LAC was thought to be settled in this area which has not seen many incidents in the past, but China now appears to think otherwise.**
- The northern bank of Pangong lake has been a point of contention where there are differing perceptions of the LAC.

Pre-Connect

- The India-China border dispute covers the 3,488-km-long Line of Actual Control, the de-facto border between the two countries. China claims Arunachal Pradesh as part of southern Tibet while India contests it.
- The LAC is the de-facto border between the two nations. The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory.
- India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km
- It is divided into three sectors: the eastern sector which spans Arunachal Pradesh and Sikkim, the middle sector in Uttarakhand and Himachal Pradesh, and the western sector in Ladakh.
- India formally accepted the concept of the LAC when the then Prime Minister P V Narasimha Rao paid a return visit to Beijing in 1993 and the two sides signed the Agreement to Maintain Peace and Tranquility at the LAC.
- The reference to the LAC was unqualified to make it clear that it was not referring to the LAC of 1959 or 1962 but to the LAC at the time when the agreement was signed.
- To reconcile the differences about some areas, the two countries agreed that the Joint Working Group on the border issue would take up the task of clarifying the alignment of the LAC.
- The LAC, is only a concept – it is not agreed upon by the two countries, neither delineated on a map or demarcated on the ground.



Analytica

Why do face-offs occur?

- ✓ Face-off and stand-off situations occur along the LAC in areas where India and China have overlapping claims. The LAC has never been demarcated.
- ✓ Differing perceptions are particularly acute in around two dozen spots across the Western (Ladakh), Middle (Himachal Pradesh and Uttarakhand), Sikkim, and Eastern (Arunachal Pradesh) sectors of the India-China border.
- ✓ The boundary in the Sikkim sector is broadly agreed, but has not been delineated. Face-offs occur when patrols encounter each other in the contested zones between overlapping claims.
- ✓ Protocols agreed to in 2005 and 2013 detail rules of engagement to prevent such incidents, but have not always been adhered to.

What is behind the latest tensions?

- ✓ Apart from the perception difference of LAC, the broader context for the tensions appears to be a dynamic change along the LAC, as India plays catch-up in improving infrastructure

there.

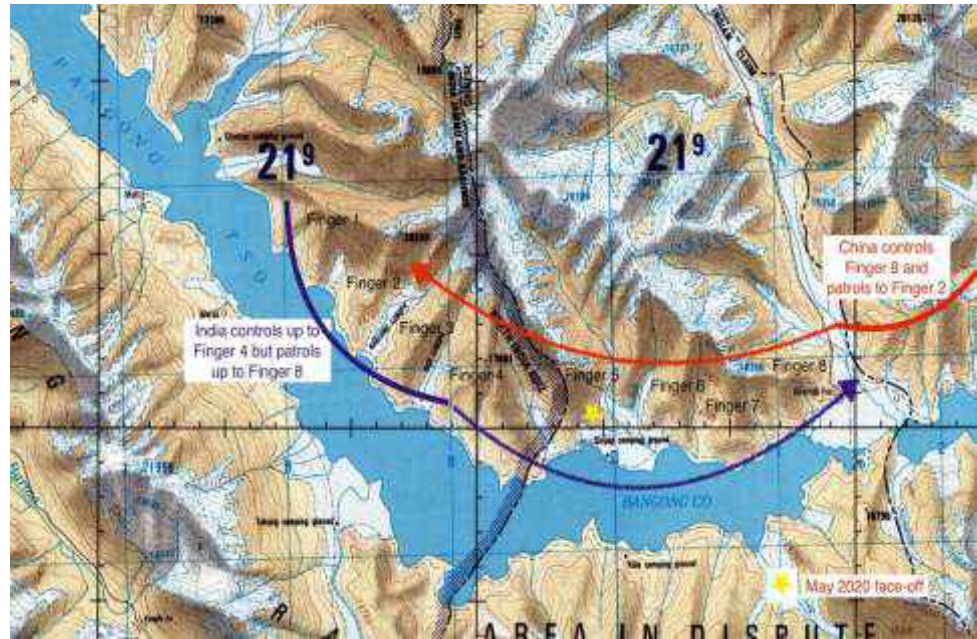
- ✓ China has enjoyed an advantage in infrastructure as well as terrain that is more favourable to mobilisation.

Pangong Tso Lake and Its Significance

- ❖ Pangong Tso is a long narrow, deep, endorheic (landlocked) and brackish water lake situated at a height of more than 14,000 ft in the Ladakh Himalayas.
- ❖ The western end of Tso lies 54 km to the southeast of Leh. The 135 km-long lake sprawls over 604 sq. km in the shape of a boomerang and is 6 km wide at its broadest point.
- ❖ By itself, the lake does not have major tactical significance. But it lies in the path of the

Chushul approach, one of the main approaches that China can use for an offensive into Indian-held territory.

- ❖ During 1999 Kargil conflict China built a 5 km road inside the Indian territory which added to the extensive network of roads built by the Chinese in the area.
- ❖ From one of these roads, Chinese positions physically overlook Indian positions on the northern tip of the Pangong Tso lake.



Fingers in the lake

- ❖ The barren mountains on the lake's northern bank, called the Chang Chenmo, are called "fingers". India claims that the LAC is coterminous with Finger 8, but it physically controls area only up to Finger 4.
- ❖ Chinese border posts are at Finger 8, while it believes that the LAC passes through Finger 2.
- ❖ Chinese use light vehicles on the road to patrol up to Finger 2, which has a turning point for their vehicles. If they are confronted and stopped by an Indian patrol in between, asking them to return, it leads to **confusion, as the vehicles can't turn back**.
- ❖ The Indian side patrols on foot, and before the recent tensions, could go up to Finger 8. The fracas between Indian and Chinese soldiers earlier this month happened in this general area at Finger 5, which led to a "**disengagement**" between the two sides.
- ❖ The Chinese have now stopped the Indian soldiers moving beyond Finger 2. This is an eyeball-to-eyeball situation which is still developing.

- ✓ Previous agreements between the two countries have recognised both sides' need for "mutual and equal security", implicitly taking into consideration the different — and more difficult — terrain on India's side that hinders mobilisation from depth.

Why has not the LAC been clarified?

- ✓ India has long proposed an exercise to clarify differing perceptions of the LAC to prevent

such incidents. Maps were exchanged in the Middle Sector, but the exercise fell through in the Western Sector where divergence is the greatest.

- ✓ China has since rejected this exercise, viewing it as adding another complication to the on-going boundary negotiations.
- ✓ **India's argument is rather than agree on one LAC, the exercise could help both sides understand the claims of the other, paving the way to regulate activities in contested areas until a final settlement of the boundary dispute.**

What is the state of boundary negotiations?

- ✓ The 22nd round of talks between the Special Representatives, National Security Adviser AjitDoval and China's State Councillor Wang Yi, was held in Delhi in December 2019.
- ✓ **Both "agreed that an early settlement of the boundary question serves the fundamental interests of both countries" and "resolved to intensify their efforts to achieve a fair, reasonable and mutually acceptable solution".**
- ✓ In 2005, an agreement on political parameters and guiding principles completed the first of three stages of the talks.
- ✓ The current, and most difficult, stage involves agreeing a framework to resolve the dispute in all sectors. The final step will involve delineating and demarcating the boundary in maps and on the ground.

Way Forward

- The likelihood of a settlement of the border appears remote. The main differences are in the Western and Eastern sectors.
- India sees China as occupying 38,000 sq.km in Aksai Chin. In the east, China claims as much as 90,000 sq. km, extending all across Arunachal Pradesh.
- A swap was hinted at by China in 1960 and in the early 1980s, which would have essentially formalised the status quo. Both sides have now ruled out the status quo as a settlement, agreeing to meaningful and mutual adjustments.
- At the same time, the most realistic solution will involve only minor adjustments along the LAC, considering neither side will be willing to part with territory already held.
- **As one Chinese scholar put it in 2018, "China's experience indicates that resolving border disputes is usually the result, rather than the cause, of improvement in relations. But India insists that its relations with China won't improve fundamentally until the border dispute is resolved."**

PEPPER IT WITH

Doklam Standoff, Wuhan Spirit, McMahon Line, Aksai Chin, Gilgit-Baltistan, Shaksgam Valley,

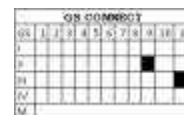
Conclusion

In some sense, China appears to view an unsettled border as holding some leverage with India, one of the many pressures point it could use to keep India off-guard. Until that strategic calculus — **and China's broader view of its relations with India** — changes, the stalemate will likely endure.

India Nepal Border Dispute

News Excerpt

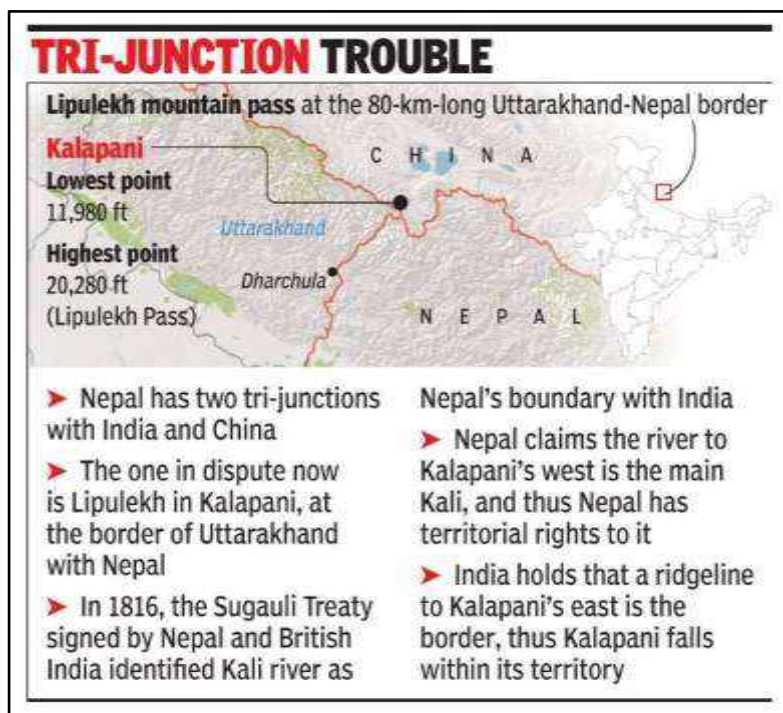
Nepal has issued a new political map that shows the disputed area between **Indian and Nepal Lipulekh, Kalapani, and Limpiyadhura under Nepal's** territory. Amidst this, in the second week of June, one Indian died and three injured after Nepal police fired on them at the Indo-Nepal border.



Pre-Connect

- The dispute over Kalapani, **which lies on the easternmost corner of Uttarakhand's** Pithoragarh district, between Nepal and India was revived in November 2019 when India published a revised political map showing the newly created Union Territories of Jammu and Kashmir and Ladakh.
- Both India and Nepal lay claim to Kalapani. The map showed Kalapani as part of Pithoragarh district. Nepal protested immediately and drew attention to the lingering issue.

- On May 8, India inaugurated the Darchula-Lipulekh pass link road, cutting across the disputed Kalapani area which is used by Indian pilgrims to Kailash Mansarovar.
- Kalapani** is a region located in the easternmost corner of Uttarakhand's Pithoragarh district.
- It shares a border on the north with the Tibet Autonomous Region of China and Nepal in the east and south.
- The area is in India's control but Nepal claims the region because of historical and cartographic reasons. The area is the largest territorial dispute between Nepal and India consisting of 37,000 hectares in the High Himalayas.
- ThaKalapani Controversy re-erupted when Defence Minister Rajnath Singh did a virtual inauguration of the 80-km road on May 8. The new road is expected to help pilgrims visiting Kailash-Mansarovar in Tibet as it is around 90 km from the Lipulekh pass.



Sugauli Treaty and Cause of the Dispute

- ❖ The Kalapani region derives its name from the river Kali. Nepal's claims to the region is based on this river as it became the marker of the boundary of the kingdom of Nepal following the Treaty of Sugauli.
- ❖ This treaty was signed between the Gurkha rulers of Kathmandu and the East India Company after the Gurkha War/Anglo-Nepal War (1814-16). The treaty was ratified in 1816.
- ❖ According to the treaty, Nepal lost the regions of Kumaon-Garhwal in the west and Sikkim in the east.
- ❖ According to Article 5, the King of Nepal gave up his claims over the region west of the river Kali which originates in the High Himalayas and flows into the great plains of the Indian subcontinent.
- ❖ As per the treaty, the British rulers recognised Nepal's right to the region that fell to the east of the river Kali.
- ❖ Here lies the historic origin of the dispute. According to Nepal's experts, the east of the Kali river should begin at the source of the river. The source according to them is in the mountains near Limpiyadhura, which is higher in altitude than the rest of the river's flow.
- ❖ Nepal claims that a land mass, high in the mountains that falls to the east of the entire stretch starting from Limpiyadhura downwards, is theirs.
- ❖ India on the other hand says the border begins at Kalapani which India says is where the river begins. The dispute is mainly because of the varying interpretation of the origin of the river and its various tributaries that slice through the mountains.
- ❖ While Nepal's claim of the territory east of Kali is based on the Limpiyadhura origin, India says the river actually takes the name Kali near Kalapani.

- Meanwhile, massive protests have erupted against Nepali Prime Minister Oli in the Himalayan nation over lack of ability to contain the COVID-19 crisis and corruption.

Demonstrators have been asking for the resignation of PM Oli.

Analytica

Why is Lipulekh pass important?

The Himalayas have several passes that connect the Gangetic region with the Tibetan plateau but Lipulekh is strategically located as it is nearest to the National Capital Region and can be of particular concern in case of an armed conflict with China.

What is the current position?

- Nepal has published a revised official map incorporating the territory from the Limpiyadhura source of the Kali to Kalapani and Lipulekh pass in the northeast of the triangular region as its territory.
- **Nepal's House** of Representatives on 13th June unanimously endorsed the second **amendment to the constitution of Nepal to update the country's new political map in the national emblem.**
- **India made it clear that Nepal's decision** to change the political map to include disputed areas is artificial, violative of historical facts and untenable.
- Indian observers say this move makes any future solution on the Kalapani issue nearly **impossible as a constitutional guarantee will make Kathmandu's position inflexible.**

India Nepal Relations

- Prime Minister Narendra Modi has often spoken of the **"neighbourhood first"** policy. He started with a highly successful visit to Nepal in August 2014.
- But the relationship took a nosedive in 2015 when India first got blamed for interfering in the Constitution-drafting in Nepal and then for an **"unofficial blockade"** that generated widespread resentment against the country.
- It reinforced the notion that Nepali nationalism and anti-Indianism were two sides of the same coin that Mr. Oli exploited successfully.
- In Nepali thinking, the China card has provided them the leverage to practise their version of non-alignment.
- China is pursuing a more assertive foreign policy and considers Nepal an important element in its growing South Asian footprint.
- **Nepal thinks that for too long India has invoked a "special relationship", based on shared culture, language and religion, to anchor its ties with Nepal.** Today, this term carries a negative connotation — that of a paternalistic India that is often insensitive and, worse still, a bully.



PEPPER IT WITH

Anglo-Nepal War 1814, 1816, Treaty of Peace and Friendship, 1950, Kali River

Way Forward

India's relations with Nepal go back deep in history. It is only when Delhi stops looking at Nepal purely through a security prism and at bilateral relations only as transactional and part of a zero-sum game with China, can Delhi turn around the potential of this multifaceted relationship to the advantage of both nations.

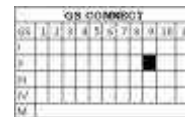
- The urgent need is to pause the rhetoric on territorial nationalism and lay the groundwork for a quiet dialogue where both sides need to display sensitivity as they explore the terms of **a reset of the "special relationship".**

- o A normal relationship where India can be a generous partner will be a better foundation for “neighbourhood first” in the 21st century.

Open Skies Treaty

News Excerpt

The US has announced it will withdraw from the Open Skies Treaty (OST), a 34-member accord that allows participants to fly unarmed reconnaissance flights over any part of their fellow member states.



Highlights

- First proposed in 1955 by former US President Dwight Eisenhower as a means to de-escalate tensions during the Cold War, the landmark treaty was eventually signed in 1992 between NATO members and former Warsaw Pact countries following the demise of the Soviet Union.
- It went into effect in 2002 and currently has 35 signatories along with one non-ratifying member (Kyrgyzstan).
- The OST aims at building confidence among members through mutual openness, thus reducing the chances of accidental war.
- **Under the treaty, a member state can “spy” on any part of the host nation, with the latter’s consent.** A country can undertake aerial imaging over the host state after giving notice 72 hours before, and sharing its exact flight path 24 hours before.
- The information gathered, such as on troop movements, military exercises and missile deployments, has to be shared with all member states.
- Only approved imaging equipment is permitted on the surveillance flights, and officials from the host state can also stay on board throughout the planned journey.

Analytica

Why did the US withdraw from the treaty?

American officials have long complained that Moscow was violating the Open Skies accord by not permitting flights over a city where it was believed Russia was deploying nuclear weapons that could reach Europe, as well as forbidding flights over major Russian military exercises. Satellites, the main source for gathering intelligence, are not affected by the treaty.

Significance of the Open Skies Treaty

- The OST was signed in 1992, much before the advent of advanced satellite imaging technology which is currently the preferred mode for intelligence gathering.
- Yet, surveillance aircraft provide key information that still cannot be gathered by satellite sensors, such as thermal imaging data.
- Also, since only the US has an extensive military satellite infrastructure, other NATO members would have to rely on Washington to obtain classified satellite data, which would be more difficult to obtain compared to OST surveillance records that have to be shared with all members as a treaty obligation.

The Members of OST

Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine, the United Kingdom, and the United States. Kyrgyzstan has signed, but not ratified the treaty.

What US departure could mean for the treaty?

- In a press brief, the US indicated that it would reconsider its decision to withdraw, if Russia “demonstrates a return to full compliance”.
- This approach is reminiscent from last year when Trump had suspended US participation in the Intermediate-Range Nuclear Forces (INF) Treaty.
- **Experts opine that Russia could use Washington’s exit as a pretext for leaving the treaty itself.**

- **Russia's departure could adversely impact Washington's** European allies, which rely on OST data to track Russian troop movements in the Baltic region.

PEPPER IT WITH
INF, START, Anti Ballistic
Missile Treaty, Outer Space
Treaty, 'New START', NATO

Conclusion

- ✓ The OST exit is only the most recent example in the list of important pacts that Washington has stepped away from during the Trump presidency, such as the Paris Agreement and the Iran nuclear deal.
- ✓ Experts are now contemplating the fate of the much larger US-Russia 'New START' nuclear arms control agreement, which is slated to expire in February 2021.
- ✓ The Trump administration would not renew the treaty unless China becomes a signatory. It is improbable, given the already heightened tensions between Washington and Beijing over the COVID-19.

Korean Armistice Agreement

News Excerpt

The UN Command, led by the United States, found that North and South Korea, both were guilty of violating armistice agreements following an incident involving gunfire along the demilitarised Zone.

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Highlights

- The investigations into the shooting that occurred on May 3 at the border was conducted by a multinational special investigations team.
- The gunfire, the first in approximately two and a half years, was in violation of the armistice agreement which brought a halt to the Korean War in 1953.
- On May 3, South Korea announced that the two countries had been involved in an exchange of gunfire early in the morning when North Korean soldiers reportedly opened fire at a South Korean guard post at the DMZ.
- The firings were a violation of the 2018 inter-Korean military agreement that had come about following a meeting between North Korean leader Kim Jong Un and South Korean President Moon Jae-in.
- One of the terms of this agreement, called the Pyongyang Joint Declaration of September 2018, said there would be reduced military tensions between the two countries.



Korean Armistice Agreement, 1953

- ❖ The 1950-53 Korean War ended in an armistice, with neither side able to claim outright victory.
- ❖ The armistice was intended as a temporary measure "until a final peaceful settlement is achieved". However, that settlement never came, and a conference in Geneva in 1954 which was designed to thrash out a formal peace accord ended without agreement.
- ❖ The armistice is still the only safeguard for peace on the Korean peninsula. The agreement provided for:
 - A suspension of open hostilities
 - A fixed demarcation line with a 4km (2.4 miles) buffer zone - the so-called demilitarisation zone.
 - A mechanism for the transfer of prisoners of war.
- ❖ Both sides pledged not to "execute any hostile act within, from, or against the demilitarised zone", or enter areas under control of the other.
- ❖ The agreement also called for the establishment of the Military Armistice Commission (MAC) and other agencies to ensure the truce held. The MAC, which comprises members from both sides, still meets regularly in the truce village of Panmunjom.
- ❖ Despite the relative peace since the war ended, tensions remain high and their border remains the most heavily militarised frontier in the world.

Conclusion

Since the armistice was enforced, there have been several violations of it in the Korean peninsula leading to persistent tensions between the two countries. In spite of it, there is thawing in mutual ties between the leaders.



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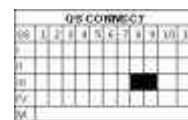
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ENVIRONMENT

Energy Efficiency Measures in India

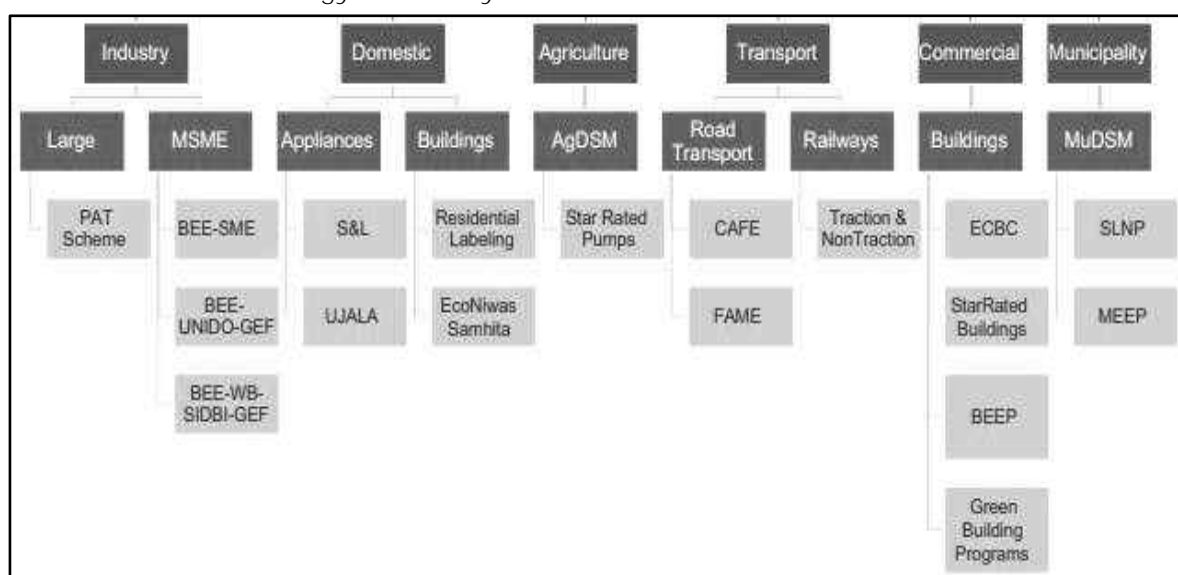
News Excerpt

Recently, the Power ministry released data on energy saving initiatives by India. A report titled 'Impact of energy efficiency measures for the year 2018-2019' was released to highlight the measures taken by India in order to achieve competent energy efficiency.



Pre-Connect

- Bureau of Energy Efficiency (BEE): It was established under the provisions of Energy Conservation Act, 2001. BEE is intended to assist in formulating policies and develop strategies with self-regulation and market principles to achieve the primary objective of reducing energy intensity with active participation of all stakeholders.
- BEE conducts an annual study comparing the actual energy consumption in a particular year with the estimated energy consumption.
- UNNATEE: BEE has adopted a strategy plan towards developing India as an Energy Efficient Nation for year 2017-2031. A National energy saving strategic plan titled Unlocking National Energy Efficiency Potential (UNNATEE) provides investment opportunity, Sector-wise energy efficiency reforms and knowledge sharing among all stakeholders.
- INDC and Paris Agreement: To comply with the provision of Paris agreement, India pledged under Intended nationally determined contribution to reduce emission intensity of its GDP by 33 to 35% as compared to 2005 levels by 2030.
- Various sector-wise Energy efficiency Schemes of India:



- Report 'Impact of energy efficiency measures for the year 2018-19': India with its energy efficiency initiative has reduced the energy intensity of its economy by 20% as compared to 2005 levels.

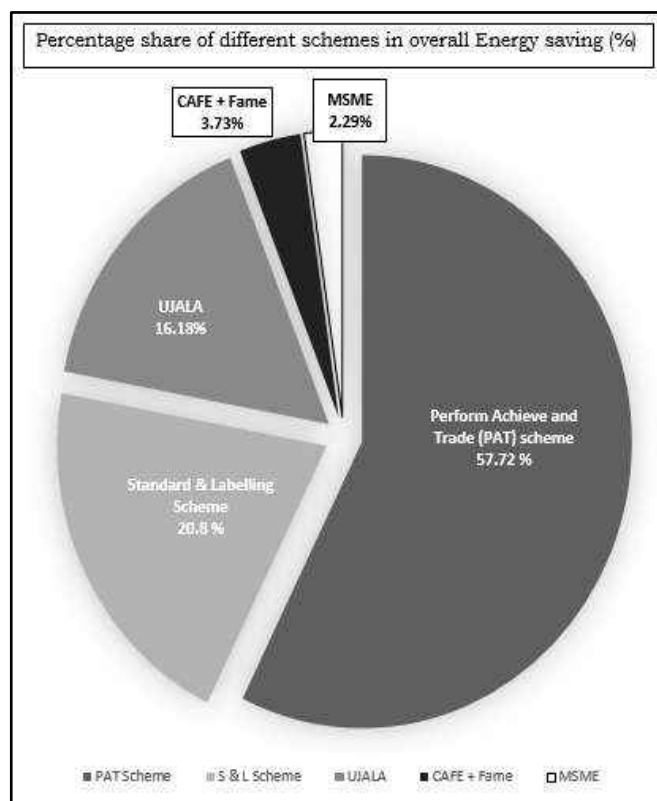
Key findings of the Report

- The energy intensity of India is steadily decreasing since the year 2014-15. For instance- The Energy Intensity of India (at 2011-12 prices) decreased from 65.5 toe (the tonne of oil equivalent) per crore rupees in 2011-12 to 55.8 toe/Cr Rupees in 2017-18.
- The implementation of various energy efficiency schemes have led to total electricity savings to the tune of 113.16 Billion Units in 2018-19, which is 9.39% of the net electricity consumption.
- The measures have translated into savings worth INR 89,122 crores (approximately), and contributed in reducing 151.74 Million Tonnes (MT) of CO₂ emissions, whereas last year this number was 108 MT CO₂.

- Industry sector has the highest contribution (49.17%) in the total energy savings while the domestic sector has contributed to 33.34% of the total savings achieved during FY 18-19.
- This year the study has identified Programmes, viz. Perform, Achieve and Trade Scheme, Standards & Labelling Programme, UJALA Programme, Municipal Demand Side Management Programme to contribute in overall savings.
- **The net energy saving potential is around 86.9 Mtoe in case of “moderate” implementation of energy efficiency programs and 129 Mtoe in case of an “ambitious” implementation of energy efficiency programs by year 2031.**

Analytica

- ✓ Energy has been recognized as one of the most important inputs to determine the economic growth and human development of a country. Energy efficiency achieved through a myriad of schemes would likely to have a multiplier effect on the energy consumption pattern, reduction in CO₂ emission to mitigate climate change vulnerabilities and overall human development in the country.
- ✓ The role of energy efficiency is crucial to complying with INDC targets and overall mitigation of CO₂ in compliance of Paris agreement.
- ✓ The consolidated values of energy savings achieved through various programs most of these schemes/programmes are essentially cross-sectoral in nature, therefore these schemes successfully managed to save energy across all the demand sectors.
- ✓ Duo Benefits: The energy saving would result in monetary saving on one hand, and on other side energy efficiency will contribute to significant reduction of CO₂ emission. Both savings and convention compliance can be achieved. These Duo Benefits would have a multiplier effect on overall improvement in the economy and sustainable development goal including various Indexes.
- ✓ As power demand is on surge, the future demand can be bridged by the energy that is saved by various initiatives of BEE. It is the least cost option to achieve Duo Targets. The main advantage of energy saving efforts is that the shortfall of power due to demand surge can be substituted by existing infrastructure without drastic changes.



Energy Triangle: The performance of countries in transition is being assessed by-

- ❖ Economic development and growth: There are mutually reinforcing links between energy transition and economic growth – as energy transition is a factor in economic growth, sustained economic growth is needed for the energy transition.
- ❖ Energy access and security: The front lines of energy security are evolving.
- ❖ Environmental sustainability: The year 2019 marked a step change on environmental sustainability. Global spending on renewable energy continued to increase, as the share of electricity from renewable sources increased substantially in multiple countries. The share of electricity produced by coal is expected to have declined by 3% in 2019.

Conclusion

- The energy demand in India is increasing rapidly by virtue of its growing economy, rapid

urbanization and rising income levels. As energy is the most important input to determine the economic growth of a country, it is prudent to initiate new and innovative policies to curb the unnecessary energy consumption across all the sectors.

- The high level of energy intensity in some of the sectors is a matter of concern. In such a scenario efficient use of energy resources and their conservation assume tremendous significance and is essential for curtailment of wasteful consumption and sustainable development.
- Energy saving is a national cause and climate change too, efficient use of energy addresses both causes. There is dire need to make efforts like BEE in making India an energy efficient economy and society so that not only we remain competitive within our own market but also are able to cope with climate changes problems caused by CO₂.

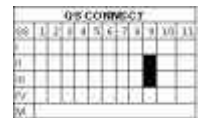
PEPPER IT WITH

National programme on Energy Efficiency and Technology Up gradation of SMEs, Star rating programme, DDUGJY, JNNISM, Zero Effect-Zero Defect Scheme, GHG Accounting

Global Energy Transition Index

News Excerpt

Recently the Global Energy Transition Index (ETI) 2020 was released by the World Economic Forum (WEF). The report cited the impact of COVID-19 on energy transition.



Pre-Connect

- About Transition: The energy transition is a pathway toward transformation of the global energy sector from fossil-based to zero-carbon.
- WEF: The World Economic Forum is the International Organization for Public-Private Cooperation established in 1971. The Forum strives in all its efforts to demonstrate entrepreneurship worldwide.
- About Index: The Energy Transition Index is a composite score of 40 indicators, benchmarks 115 countries on the current performance of their energy system, and their readiness for transition to a secure, sustainable, affordable, and inclusive future energy system. ETI is part of the **WEF's Fostering Effective Energy Transition initiative**.

Key Highlights of Index

- Ranking:
 - Sweden leads the overall rankings for the third consecutive year, followed by Switzerland and Finland.
 - The performance of G20 countries is varied. France and the United Kingdom are the only G20 countries in the top 10.
 - In Asia China and India made consistent improvements on overall ETI score since 2015.
 - Russia, Japan, South Korea and Germany made moderate gains and the United States, Canada, Brazil and Iran were either stagnant, or declining.
- The transition of the energy system over the past decade was slower than required to achieve the objectives of the Paris Agreement.
- The Corona virus has stalled the long term strategy to revamp the power sector including investment opportunities. Further, COVID-19 has unleashed cascading effects in real time like-
 - The erosion of almost a third of global energy demand.
 - Unprecedented oil price volatilities and subsequent geopolitical implications.
 - Delayed or stalled investments and projects.
 - Uncertainties over the employment prospects of millions of energy-sector workers.
- Over the past five years, most countries including India have reduced the level of fossil based energy subsidies to make a power generation shift towards cleaner energy.
- The progress on environmental sustainability remains slow, but 2019 was a landmark year.

India and Energy transition

- ✓ India has moved up two positions to rank 74th on a global 'Energy Transition Index' with

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improvements on all key parameters of the Energy triangle.

✓ **Reason for improvement in India's ranking:**

1. **India's economic growth has paved the way for enhanced energy security and energy transition.** For Instance- for India gains have come from a government-mandated renewable energy expansion programme, now extended to 275 GW by 2027. It suited up with the parameter Environmental sustainability.
2. India has also made significant strides in energy efficiency through bulk procurement of LED bulbs, smart meters, and programs for labelling of appliances. Similar measures are being experimented to drive down the costs of electric vehicles (through FAME).

3. India can achieve 30% of variable Renewable Energy generation by 2030 (wind and solar), and 45% zero carbon generation, including hydro and nuclear. This would make India's power sector as clean as Japan's today, and would be unprecedented leapfrogging to decarbonisation of the electricity sector.

New Subsidies (All Introduced in FY18) to make Energy transition-

- ❖ Green energy corridor projects
- ❖ Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya)
- ❖ Ujjwala scheme – LPG subsidies for the poor
- ❖ Concessional GST on coal production
- ❖ Concessional GST rates for Domestic LPG
- ❖ Concessional GST rates for PDS Kerosene
- ❖ Concessional GST rates for Solar and Wind projects

- ✓ Long term strategy: India is opting out several fossil fuel based subsidies to halt carbonization and emission, to change the consumption pattern, make a transition in power generation and to impose environmental regulation in order to cope with the issue of climate change. India is making a significant energy generation shift by subsidizing renewable power.

Analytica

Reason for Slow Readiness in India: First, the cost associated with energy transition is huge and cannot be substituted by fiscal intervention. Although various measures have been taken to make a shift in the consumption pattern or to save energy.

Where India lacks: Though New facilities are developed on renewable basis to curtail emission and make a transition. But India is not focusing on elimination of existing fossil based power generation but rather focusing on renewable sources to bridge the future energy demand.

PEPPER IT WITH

Intended Nationally Determined Contribution, Paris Agreement, Kyoto Protocol, Market Mechanisms

Challenge: **A growing share of subsidies are dedicated to making India's energy mix cleaner,** the State-sponsored subsidies to fossil fuels like-oil, gas and coal were more than triple the value of subsidies to renewables and electric vehicles in India. This undermines India's overall performance and India must address this concern.

Impact of COVID: The rhythm and momentum of the energy transition will potentially be impeded by the COVID-19 pandemic. Cascading effects have led to an unprecedented energy demand and price shocks, and the reallocation of public funds and prioritize private investment towards healthcare, social security and business continuity rather than energy investment.

Way Forward

- Energy transition can solve many problems of environmental sustainability, such as climate change and water scarcity.
- The Government of India needs to boost energy policy objectives, such as reducing dependence on fossil fuel imports and building energy security by best leveraging domestic natural resources (coal, hydro, wind and solar), providing universal energy access at affordable prices, meeting energy demand in an efficient way, ensuring greater sustainability and supporting economic growth. Energy subsidies are tools for meeting these objectives, but do not always deliver against them and require ongoing scrutiny.

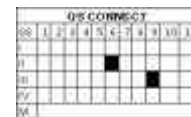
Subsidies may distort the market and make the energy market uncompetitive.

- The Government of India should improve energy subsidy reporting at both national and state level through self-reporting energy subsidies, for instance under the G-20 process or the SDGs.

Garbage Free Star Rating

News Excerpt

Recently, the Ministry of Union Housing and Urban Affairs (MoHUA) has announced the garbage-free star rating for the cities.



Pre-Connect

- The Swachh Bharat Mission - Urban (SBM-U): It aims at making urban India free from open defecation and achieving 100% scientific management of municipal solid waste in 4,041 statutory towns in the country.
- Swachh Survekshan: It is an urban cleanliness survey conducted by the Ministry of Housing and Urban Affairs. It has proven immensely successful in improving urban cleanliness through a spirit of healthy competition.
- Star Rating protocol: It was launched by the central government in January 2018 to institutionalize a mechanism for cities to achieve garbage free status leading to a higher degree of cleanliness.
- The protocol includes components such as cleanliness of drains & water bodies, plastic waste management, managing construction & demolition waste which are critical drivers for achieving garbage free cities. The key thrust of this protocol is on solid waste management, it also takes care of ensuring certain minimum standards of sanitation.

Key Parameter for Garbage free cities-

- ❖ Door-to-Door Collection
- ❖ Segregation at source
- ❖ Sweeping of public, commercial and residential areas (no visible eyesores on streets)
- ❖ Waste Storage Bins, Litter Bins and Material Recovery Facility
- ❖ Bulk Waste Generators compliance
- ❖ Scientific Waste Processing, Scientific Landfilling and C&D Waste Management
- ❖ User Fees, Penalties, Spot Fines for littering and enforcement of ban on plastic
- ❖ Citizen grievance redressal and feedback system
- ❖ Eradication of crude dumping of garbage and dump remediation
- ❖ Cleaning of storm water drains and surface of water bodies
- ❖ Visible beautification in the city

Highlights

- To tackle the problem of poor solid waste management in urban India, in January 2018, the Ministry of Housing and Urban Affairs (MoHUA) launched a star rating system.
- The aim of the star rating system was to institutionalize a mechanism for cities to achieve garbage free status and achieve higher degrees of cleanliness.
- Out of 1435 Cities, A total of 141 cities have been rated — six of them 5-star, 65 of three-star, 70 one-star.
- Navi Mumbai, Surat, Rajkot, Indore, Mysore and Ambikapur in Chhattisgarh have been rated 5-star garbage free cities.
- Karnal, New Delhi, Tirupati, Vijayawada, Chandigarh, Bhilai Nagar, Ahmedabad are among 'three-star garbage free ratings while Delhi Cantonment, Vadodara, Rohtak are among one-star garbage free cities.

Analytica

- ✓ COVID-19 & Sanitization: The pandemic poses an enormous challenge of cleanliness. SMB has given strength to fight viruses with cleanliness. COVID-19 without SBM may cost more.
- ✓ Sanitation is the principal factor to define the health status and ranking would create competitiveness for cleanliness which will ultimately yield a positive impact on human wellbeing.

- ✓ The importance of sanitation and effective solid waste management has been brought to the forefront now due to the COVID crisis. In fact, it would not be an exaggeration to say that the present situation could have been much worse had it not been for the critical part that SBM-U has played in the last five years to ensure a high degree of cleanliness and sanitation in urban areas.
- ✓ Reason for under performance of cities: The introduction of new parameter-citizen **grievances as selection criteria is a major reason for the underperformance. Cities didn't** have enough marks in the citizen grievance part due to which they were not able to qualify.
- ✓ Methodology: The star rating programme is voluntary. Hence it doesn't attract all municipalities. Cities must go through mandatory assessment to review the garbage management. Moreover, the Garbage-Free Star Rating will encourage ULBs to strengthen the solid waste management system in their cities thereby improving the livability and public health of citizens.
- ✓ Limitations: Most of the municipal institution are suffering from fund crunch, political partiality, incompetent management, under-productive workforce, lack of ICT led Infrastructure etc. these make municipalities remain away from assessment. Government should devolve more funds for innovative methods intended towards garbage management.

PEPPER IT WITH

SBM-Urban, SBM-Rural, Swatch Sarvekshan Survey, Solid Waste Management Rules, IEC, Darwaza Bandh Campaign

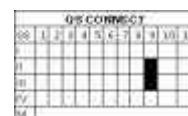
Way forward

- The Government of India must accelerate both Swachhta and other measures like ODF Plus to fight the pandemic which contributes to cleanliness and ultimately health.
- Government should devolve more economic and political powers to local governments to work impartially and competently.
- There should be a nationwide mandatory survey so that garbage collection competitiveness can be increased. A system of reward and appreciation should be streamlined in the policy to encourage ULBs to take appropriate measures for scientific management of garbage and solid wastes.

Global Energy Review 2020

News Excerpt

A report 'Global Energy Review' was released by International Energy Agency (IEA) to review the contemporary energy demands. The report underlines the impacts of the Covid-19 on global energy demand.



Pre-Connect

IEA: The IEA is an autonomous body within the Organization for Economic Co-operation and Development, or OECD, framework. It works towards ensuring reliable, affordable and clean energy for its member countries. Its main areas of focus are energy security, economic development, environmental awareness and engagement worldwide.

Key Highlights of the Report

1. Energy Demand:
 - The coronavirus pandemic has triggered macroeconomic instability in an unprecedented way. Imposition of lockdown and restrictions represent a challenge of a supply and a demand shock.
 - The drastic curtailment of global economic activity and mobility during the first quarter of 2020 pushed down global energy demand by 3.8% relative to the first quarter of 2019.
 - Global energy consumption is set to plunge this year in the biggest demand shock since World War II. Global electricity demand will fall by 5% in 2020. This would be the largest decline since the Great Depression. All fuels except renewables are set to experience their greatest contractions in demand for decades.

Fuel	Reason
1. Oil: Oil demand could drop by 9%, or 9 mb/d on average across the year, returning oil consumption to 2012 levels.	Restrictions on travel and the closing of workplaces and borders sharply reduced demand for personal vehicle use and air travel, while the curtailment of global economic activity put a brake on fuel oil use for shipping.
2. Coal: Coal demand could decline by 8%, in large part due to a fall in electricity demand of nearly 5% over the course of the year, pushing down output from coal-fired generators by more than 10%.	The decline in coal demand caused mainly due to reduction in electricity demand (Demand Decreased by 2.5%) and competition from very cheap natural gas. The curtailment of industrial production also had an important impact on coal demand over the first three months of the year.
3. Gas: The Demand for natural gas declined by around 2%	Significant reduction in demand for power and industry applications.
4. Nuclear: The demand for electricity is declining, therefore it will have an impact on Nuclear power.	Nuclear power demand would also fall in response to lower electricity demand.
5. Renewable energy demand increased by about 1.5% in Q1 2020, lifted by the additional output of new wind and solar projects that were completed over the past year.	Renewables demand is expected to increase due to low operating costs and preferential access to many power systems. Recent growth in capacity, with some new projects coming online in 2020, will also boost output. Biofuels however, are likely to see demand decline, directly impacted by lower transport activity.

- o Energy demand in China is projected to decline by more than 4%. In India, energy demand would decline for the first time, following on from low demand growth in 2019. However, it is the advanced economies that will experience the greatest declines in energy demand in 2020. In both the European Union and the United States, demand in 2020 is likely to fall around 10% below 2019 levels, almost double the impact of the global financial crisis.

If lockdowns are shorter and the global recovery is more rapid, the decline in global energy demand across 2020 could be limited to 3.8%	In case of extension of lockdown for months recoveries may slow and annual energy demand will drop by 6% in 2020.	A possible second wave of the pandemic or a slower recovery could exacerbate the potential declines beyond estimation fuel in 2020.
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2. CO₂ Emission

- o CO₂ emissions are likely to fall. Global CO₂ emissions were over 5% lower as compared to the first quarter of 2019. Due to 8% decline in emissions from coal, 4.5% from oil and 2.3% from natural gas.
- o Global CO₂ emissions may decline and reach 30.6 Gt in 2020, almost 8% lower than in 2019. This would be the lowest level since 2010.
- 3. India and Energy Demand
 - o The impact on energy demand in India was modest in Q1 2020, as demand increased by 0.3 relative to Q1 2019. This is because India imposes lockdown at the time of completion of Q1 and after as compared to China and European nations.
 - o Full lockdown in India has resulted in 30% fall in overall energy demand.

PEPPER IT WITH
INDC, PM-KUSUM, UJJAWALA
Scheme, OPEC, Oil Price fluctuation,
SDG and Energy Security, NAPCC,
NMEEE

- o India's transportation fuel demand has come down as citizens cooped up indoors, though there has been an increase in demand for domestic cooking gas. This has resulted in refinery units operating at around half their capacity.
- o With industries shut, India's electricity demand has also taken a hit.
 - o Impact: This scenario would have a positive impact on the Balance of Trade or overall energy import bill.
- 4. Impact of decreasing demand
 - o The Oil producing countries' economy will be hit badly and unemployment would be on rise. Especially in gulf countries where many of Indian employed.
 - o The historic collapse in energy prices has also hit the global commodity markets, threatening to tip the sluggish global economy into a deep recession. The global economy is expected to enter a recessionary phase in 2020 as countries have shut down normal business activity to fight the covid-19.
 - o The energy industry is facing financial impact throughout value chains, with most energy companies losing substantial revenues. Effectively they are being hit twice, first by lower demand for their products – including oil, gas, coal and electricity – and again by lower prices for these products.

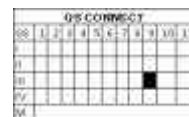
Way Forward

- Governments can play a major role in shaping the energy sector's recovery from the Covid-19 crisis. In particular, the economic stimulus packages may offer an opportunity for governments to link economic recovery and expedite efforts with clean energy transitions – and steer the energy system onto a more sustainable path.
- The Covid-19 crisis can be a way forward in clean energy transitions and for that a co-ordinated policy effort is required to harvest the clean energy transitions and fiscal stimulus opportunities to build a more modern, cleaner and more resilient energy sector for all.

Migratory Birds

News Excerpt

Recently, in some parts of India migratory birds have arrived a month earlier. World Migratory Bird Day (WMBD) on 9 May is an awareness-raising campaign highlighting the need for the conservation of migratory birds and their habitats.



Pre-Connect

- The Convention on Migratory Species (CMS), also known as the Bonn Convention, aims to conserve terrestrial, aquatic and avian migratory species throughout their range.
- The African-Eurasian Migratory Water-bird Agreement (AEWA): The Agreement on the Conservation of African-Eurasian Migratory Water-birds (AEWA) is an intergovernmental treaty dedicated to the conservation of migratory water-birds that migrate along the African-Eurasian Flyway. The treaty covers 119 Range States from Europe, Africa, the Middle East and parts of Asia and Canada.
- The Asian Water-bird Census is an international programme that focuses on monitoring the status of water-birds and wetlands. It also aims to increase public awareness on issues related to wetlands and water bird conservation.

Migratory Birds

Migratory birds fly across Malaysia — and over thousands of kilometres annually — to escape the cold winter or to reach breeding grounds. They follow the same path each year with little deviation.

Analytica

Reason for early Arrival: Lockdowns in various parts of the world including India have been attributed to reduced air pollution, a cooler summer and intermittent pre-monsoon rains. These factors may have helped the migratory birds to fly to India earlier this year and also in greater numbers.

Conservation initiatives: Conserving and restoring the ecological connectivity and integrity of

ecosystems that support the natural cycles that are essential for the survival and well-being of migratory birds. There is clear evidence that the destruction of wild areas can facilitate the kinds of infectious diseases the world is now combatting, urgent action to better protect and sustain wildlife and their habitats is needed.

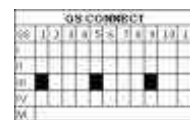
Migratory birds depend on a network of sites that cross national borders along their migration routes for breeding, feeding, resting and overwintering, international action to protect them is essential.

For More on Migratory Bird refer KSG Current Connect February 2020, Page No-70-71

Coir Geotextiles

News Excerpt

Recently, Government has approved to use coir geotextile in construction of roads under third phase of Pradhan Mantri Gram Sadak Yojana (PMGSY-III). This decision would boost demand in the stagnated coir industry.



Pre-Connect

- Coir Udyami Yojana is a credit linked subsidy scheme for setting up of coir units. The scheme is being implemented by the Coir Board.
- Geotextiles have no synthetic material but are instead made out of an organic fibre, coir, which is extracted from the husk of a coconut. It is strong, durable, waterproof and is one of the few natural fibers that is salt water resistant.

About Coir Geotextile

Coir geotextiles are used in constructional work. The fabrics in geotextiles are permeable fabrics and are used with soils having the ability to separate, filter, protect or drain. The fabric used in it must have good strength, durability, low moisture absorption and thickness.

Coir geotextiles are available in the form of woven and non-woven. The coir board has formulated and got BIS specification for coir geotextile based operations.

The unique properties of coir which give an edge over other natural or synthetic fibers are:

- Of all natural fibers coir possesses the greatest tearing strength even in wet condition.
- Unlike most synthetic fibre, coir fibers are non-thermoplastic which means they do not get softened when heat is applied.
- Coir fibre shows little sensitivity to dry heat and there is no shrinkage for higher extensibility upon heating.
- Coir can withstand huge amounts of weight and rubbing and recovers as soon as it is removed from it.
- Coir fibre is in demand for its toughness strength resistance to dampness not resistant durability and natural resilience porous hygroscopic and biodegradable properties.
- Coir do not require anti UV treatment during field application that do not become brittle

Textiles Committee

- ❖ The Textiles Committee, Mumbai has been approved to test and certify personal protection equipment (PPE) body coveralls used by the healthcare workers and other Covid-19 warriors.
- ❖ Textile Committee decided to do PPE test indigenously by conceptualising and designing the machine including the vital Synthetic Blood Penetration Testing equipment required to determine the resistance of protective clothing materials to penetration by blood and body fluids.
- ❖ With this equipment not only the quantitative but also the qualitative requirements involved in the testing of Body Coveralls worn by the frontline health workers and other Covid-19 warriors.
- ❖ The Textiles Committee is a statutory body established in 1963. It has been formed to ensure the quality of textiles and textile machinery both for internal consumption and export purpose. The Committee is tasked with the functions of establishing laboratories for the testing of textiles and textile machinery and providing for their inspection and examination, besides other functions which flow from the main objective of ensuring quality of textiles products and textiles machinery.

is cold to below freezing the thermal recycling is also possible why is renewable recyclable and versatile.

In road construction it can play a significant role by addressing the problem of pavement structural deficiencies. It occurs due to the loss of mechanical properties. Coir can bind and increase material connection to provide significant strength.

Coir Geo Textile have wide variety of applications in use of coir in agro-tech, build-tech, cloth-tech, geo-tech and medi-tech

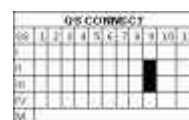
Significance of the move

- The move will give impetus to the coir geotextile and provide employment opportunities amid COVID-19. The market potential for coir is likely to increase.
- **The use of coir as a material for building will increase road's strength without affecting the environment.** Apart from road construction, geotextiles can be used for soil conservation, as erosion control blankets and so on.
- As per these instructions, 5% length of the rural roads under PMGSY-III will be constructed using Coir Geo textiles.

Global Forest Resources Assessment 2020

News Excerpt

Recently, the UN Food and Agriculture Organization has released a report on 'Global Forest resource assessment 2020'. Report provides a comprehensive view of the world's forest and the ways in which the resources are changing.



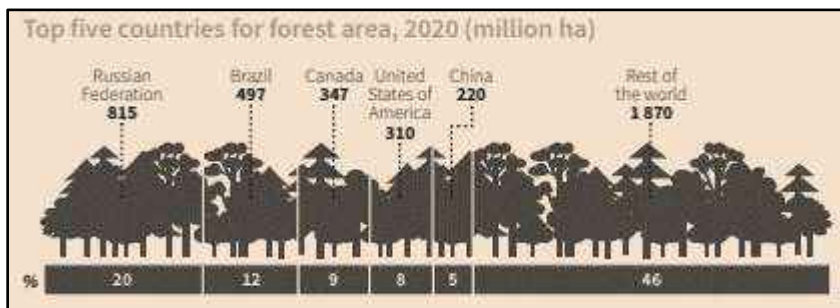
Pre-Connect

- Since 1946, FAO has been monitoring the world's forest resources through periodic assessments conducted in cooperation with its member countries.
- The Assessment examines the status of, and trends in, more than 60 forest-related variables in 236 countries and territories in the period 1990–2020.

Key Findings

Distribution of forest cover

- Forests cover nearly one-third of the land globally. The world has a total forest area of 4.06 billion hectares (ha), which is 31 % of the total land area.
- This area is equivalent to 0.52 ha per person. Forests are not distributed equally among the world's people or geographically.
- The tropical region has the largest proportion of the world's forests (45 percent), followed by the boreal (27%), temperate (16%) and subtropical (11%) domains.
- **More than half (54 percent) of the world's forests are in only five countries.**



Decreasing in forest Areas

- **The world's forest area is decreasing, but the rate of loss has slowed.** The world has lost 178 million ha of forest since 1990, which is an area about the size of Libya.
- The rate of net forest loss decreased substantially over the period 1990–2020 due to a reduction in deforestation in some countries, plus increases in forest area in others through afforestation and the natural

FAO defines deforestation as the conversion of forest to other land uses regardless of whether it is human-induced. "Deforestation" and "forest area net change" are not the same: the latter is the sum of all forest losses (deforestation) and all forest gains (forest expansion) in a given period. Net change, therefore, can be positive or negative, depending on whether gains exceed losses, or vice versa.

expansion of forests.

- Africa had the largest annual rate of net forest loss in 2010–2020, at 3.9 million ha. The rate of net forest loss has increased in Africa in each of the three decades since 1990. Asia had the highest net gain of forest area in 2010–2020, followed by Oceania and Europe. Deforestation continues, but at a lower rate about 420 million ha of forest lost due to deforestation since 1990.

PEPPER IT WITH

India State of Forest Report, National Green Mission, IPCC, FAO, UNCCD

Protected forest

- **More than 90 percent of the world's forests have regenerated naturally.**
- More than 700 million ha of forest is in legally established protected areas. South America has the highest share of forests in protected areas, at 31 percent. The area of forest in protected areas globally has increased by 191 million ha since 1990, but the rate of annual increase slowed in 2010–2020.
- **The world's forests are mostly publicly owned, but the share of privately owned forests has increased since 1990.**
- An area of 186 million ha of forest worldwide is allocated for social services such as recreation, tourism, education research and the conservation of cultural and spiritual sites.

Fire Incidents

- Forests face many disturbances that can adversely affect their health and vitality and reduce their ability to provide a full range of goods and ecosystem services.
- About 98 million ha of forest were affected by fire in 2015; this was mainly in the tropical domain, where fire burned about 4 percent of the total forest area in that year.
- More than two-thirds of the total forest area affected was in Africa and South America.
- Insects, diseases and severe weather events damaged about 40 million ha of forests in 2015, mainly in the temperate and boreal domains.

Miscellaneous

Total forest carbon stock is decreasing. About 30 percent of all forests are used primarily for **production**. **About ten percent of the world's forests are allocated for biodiversity conservation.** The area of forest designated primarily for soil and water protection is increasing.

Analytica

Impact of forest declining: Forest biodiversity is threatened by rapid deforestation, forest fragmentation and degradation, hunting and the arrival of invasive species from other habitats. We are losing 12 million hectares of forest a year, much of it tropical rainforest with its unique and rich biodiversity. Climate change is already unsettling the world and loss of forest will contribute to the more extreme event.

Increase Green Cover: There is a need to halt the decreasing of forest area. A global level comprehensive policy to regenerate forest over wasteland could be a good substitution of forest lost by adversities of climate change.

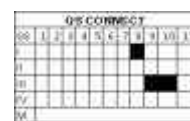
Way Forward

- ✓ Region wise strategy must be enacted to increase forest cover, increase protected areas including biodiversity conservation. African countries should nudge to avoid slash and burn in order to save the virgin forest.
- ✓ Long term strategy is required to manage the incident of forest fire. Early warning system could help to make utmost control over fire in the initial stage. There is a dire need to protect the forest by stricter legislative regime to save our green treasure.

Tropical Cyclones

News Excerpt

Recently, India suffered from two powerful storms — super cyclone Amphan and extremely severe cyclone Nisarga — in a span of 15 days. Super cyclone caused devastating impacts on the east coast while Nisarga made landfall on the coast of Maharashtra.



Pre-Connect

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- All tropical cyclones have low atmospheric pressure at ground level, and a vortex of converging winds and rising air. They all have extensive rain-bearing nimbostratus layered clouds and expand vertically.
- Tropical cyclones in South Asia derive their main energy from intense evaporation over warm water unlike frontogenesis tropical cyclones vary greatly in size, frequency and intensity.
- The life cycle of a tropical cyclone depends on the heat and moisture gathered during formation of various cyclonic stages. Tropical cyclones in the seas are a prominent feature of summer months.
- The last super cyclone to hit India occurred in 1999 and caused nearly 10,000 deaths in Orissa (Odisha) state.
- According to the India Meteorological Department (IMD), the ratio of cyclones in the Arabian Sea and the Bay of Bengal is 1:4.

About Super Cyclone

- The Bay of Bengal has recorded the highest summer temperature which resulted in abundant supply of heat and moisture required to form a super cyclone. Declining aerosols suspension due to nationwide lockdown allows more amount of insolation absorption by ocean water surfaces which contribute to the abnormal heating of the ocean.
- Abnormal heating and excess moisture forms a cyclone over a larger area. A Super cyclone is characterized by:
 1. Wind speeds more than 220Kmph and forms over larger surface areas.
 2. A super Cyclone is 'Multi-hazard', strong winds cause physical damage, tidal waves cause flash floods in coastal regions and heavy rains due to landfall cause flooding in interior regions.
 3. Quick evolution of cyclone formation from category-1 to category-5 in less than 20 hrs.
 - Reason for Super cyclone: The usual storm was fuelled by warm ocean temperatures, which helped its intensification in the early and mature stages. Climate change could possibly make the strongest cyclones even more powerful in the near future. Indian Ocean is recording several new high temperature trends, warm ocean water is the first, and perhaps the key ingredient for the formation of tropical cyclones, so the system is primed for more storms.

PEPPER IT WITH
WMO, IMD, Cyclone warning System,
NDMA, NDRF, Extra Tropical
Cyclones

Intensity Scale of Cyclone

Category	Wind speed	Damage
Category 1	Around 90 KMPH	Some damage to crops, trees, caravans (mobile homes); gusts to 125 km/hr
Category 2	91–125 KMPH	Heavy damage to crops, significant damage to caravans; gusts of 125–170 km/hr
Category 3	126–165 KMPH	Some caravans destroyed; some roofs and structures damaged; gusts of 170–225 km/hr
Category 4	166–226 KMPH	Significant damage to roofs and structures; caravans destroyed; gusts of 225–280 km/hr
Category 5	166–226 KMPH	Widespread destruction; gusts greater than 280 km/hr

Nomenclature of tropical Cyclone

- ✓ In 2000, a group of nations called WMO/ESCAP (World Meteorological Organisation/United Nations Economic and Social Commission for Asia and the Pacific), which comprised Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand, decided to start naming cyclones in the region. Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen were included in 2018.
- ✓ The name of cyclone is given by the IMD on the basis of prior suggestions by 13 Countries. It follows an alphabetical order to choose a concerned name coined by a concerned nation.
- ✓ The India Meteorological Department (IMD) has released a list of 169 names of future

tropical cyclones that would emerge in either Bay of Bengal or in the Arabian Sea.

- ✓ The next few cyclones will be named Gati (named by India), Nivar (Iran), Burevi (Maldives), Tauktae (Myanmar) and Yaas (Oman).

Risk Mitigation and Way forward

- Resilient structural changes: The cyclonic shelter, Shelterbelt plantation, Institutional capacity building and hazard reduction studies and Improvement of on-shore warning systems are important in order to mitigate the risk level posed by cyclones.
- Multi-pronged approach: **As no single approach will be able to address the community's vulnerability to hazards**, a multipronged most effective approach is required to reduce the risks, incorporating protection, accommodation and retreat options to handle the cyclone risk.
- Strategic mitigation options: Broad risk mitigation strategies can be classified into three main types namely; protection, accommodation and retreat. Structural measures can range from engineering structures that are added to the landscape to protect from hazards. Non-structural measures refer to policies, regulations and plans that promote good coastal management practices to minimize risks from coastal hazards. Education and outreach **campaigns that increase the public's awareness of risks, vulnerability and preparedness responses** can be considered as non-structural measures.



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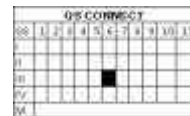
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SCIENCE AND TECHNOLOGY

Solar Minimum and Sunspots

News Excerpt

Cosmic rays — high-energy particles that move through space at the speed of light — **are intensifying as the Sun enters a 'solar minimum', which could be a hazard to astronauts and produce more storms.**



What is Solar minimum?

- Sun enters Solar Minimum, when fewer sunspots appear on the star, marking the end of a solar cycle.
- Every 11 years, the Sun enters on a new solar cycle. Scientists believe the **phenomenon is controlled by the Sun's magnetic field.**
- **The Sun's magnetic field goes through a periodic cycle, in which the south and north poles switch spots, and it takes another 11 years for them to switch back.**
- NASA pointed out that intense activity such as sunspots and solar flares subside during solar minimum, it does not mean that the Sun becomes dull.
- Solar activity changes form. Solar Minimum may cause freezing temperature, earthquakes and drought.

What is a Sunspot?

It's an area of intense magnetic activity on the surface of the Sun—a storm—that appears as an area of darkness. Sunspots are indicative of solar activity, birthing solar flares and coronal mass ejections (CMEs). Although sunspots seem like tiny specks, they can be colossal in size.

Solar dynamo

Given the high temperatures in the Sun, matter exists there in the form of plasma, where the electrons are stripped away from the nuclei. The Sun is made of hot ionised plasma whose motions generate magnetic fields in the solar interior by harnessing the energy of the plasma flows. This mechanism is known as the solar dynamo mechanism. **"Simply stated, it is a process by which kinetic energy of plasma motions is converted to magnetic energy, which generates the magnetised sunspots, giving rise to the solar cycle.**

What is the solar cycle?

The Sun has a cycle that lasts between nine and 14 years—typically 11 years, on average. At the peak of that cycle—called solar maximum—the Sun produces more electrons and protons as huge solar flares and coronal mass ejections. From a visual perspective, the solar cycle is a "sunspot cycle" since solar scientists can gauge where the Sun is in its cycle by counting sunspots on its surface.

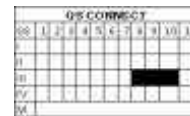
Analytica

- A solar minimum, which is a "regular part of the sunspot cycle," means that the Sun's magnetic field is weak. This results in extra cosmic rays entering the solar system.
- So far this year, the sun has been blank 76 per cent of the time, a rate surpassed only once before in the Space Age.
- While there's some evidence that the solar cycle affects Earth's weather and climate, the status of the Sun has the most obvious effect on the intensity and frequency of aurora.
- The more charged-up the solar wind headed towards Earth, the brighter and more frequent are the displays of Northern Lights and Southern Lights.
- **During solar minimum, the sun's magnetic field weakens and provides less shielding from cosmic rays.** This can pose an increased threat to astronauts traveling through space.
- During solar minimum the corona is relatively small and tightly bound to the surface. **During solar maximum, the Sun's corona is typically flared and stretching away into space.**
- **It's thought that the Sun will reach solar maximum in the mid-2020s, though exactly when sunspot frequency will peak is anyone's guess.**

Visakhapatnam Gas Leak

News Excerpt

A poisonous gas that leaked from a storage tank in a polymer factory near Visakhapatnam in Andhra Pradesh reportedly killed a number of people and affected more than 1,000.



Pre-Connect

- **Bhopal gas tragedy of 1984, considered one of the world's worst industrial disasters**, killed thousands of people, including women and children, when the deadly methyl isocyanate gas leaked from the Union Carbide factory.
- The disaster indicated a need for enforceable international standards for environmental safety, preventative strategies to avoid similar accidents and industrial disaster preparedness.
- The Environment Protection Act was passed in 1986, creating the Ministry of Environment and Forests (MoEF) and strengthening India's commitment to the environment.
- The Public Liability Insurance Act, 1991 provided for public liability - insurance for the purpose of providing immediate relief to the persons affected by an accident while handling hazardous substances.
- The National Green Tribunal (NGT) Act, 2009 provided for the establishment of a tribunal for expeditious disposal of cases relating to environmental protection and for giving relief and compensation for damages to persons and property.

Highlights

- **The gas that leaked from Korean company LG Polymers' plant in Visakhapatnam was styrene**, a hazardous chemical which goes into the making of polystyrene.
- Styrene is a colourless, toxic, organic compound but could become deadly when it mixes with air. It reacts with oxygen, turning into monoxides and dioxides that are far more lethal than the original derivative of benzene, a carcinogenic chemical.
- Breathing air contaminated with styrene vapours can cause irritation of the nose and throat, coughing and wheezing, and create a build-up of fluid in the lungs
- Exposure to larger amounts can result in the onset of "styrene sickness", the signs and symptoms of which include headache, nausea, vomiting, weakness, tiredness, dizziness, confusion and clumsy or unsteady motion.
- Styrene is used in the manufacture of containers for foodstuffs, packaging, synthetic marble, flooring, disposable tableware and moulded furniture.
- Styrene has a high boiling point of 145 degree centigrade. Owing to its nature, it needs to be stored in a temperature-controlled tank. Ambient temperatures at this time of the year in India are quite elevated and if the controlled environment is disturbed, it could set off a reaction that could rupture the storage tank.
- **According to a news report, the company had expanded production "beyond the limit of environmental clearance or changed the product mix without obtaining prior environmental clearance as mandated under the EIA (Environment Impact Assessment) Notification, 2006.**
- As per the Hazardous Waste Inventory Report 2016-17, there are 56,350 industrial units that produce 7.7 million tonnes of hazardous waste every year.

PEPPER IT WITH
Bhopal gas Tragedy,
EIA, NGT, EIA

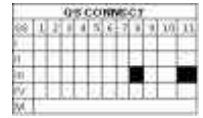
Way Forward

What happened in Gopalapatnam is also a warning for industries across India. In India, no single legislation has been made for the precautionary measures to be taken in the chemical **industry that is worth \$163 billion. India doesn't** even have an inventory of the chemicals being used. There is a need to operationalise the National Plan on Chemical Safety.

Eventbot

News Excerpt

The Indian Computer Emergency Response Team (CERT-In) has issued an advisory warning people against a trojan called EventBot, which can affect Android smartphone users in the country and steal their personal financial information.



Pre-Connect

- Cybercrime is any criminal activity that involves a computer, networked device or a network.
- While most cybercrimes are carried out in order to generate profit for the cybercriminals, some cybercrimes are carried out against computers or devices directly to damage or disable them, while others use computers or networks to spread malware, illegal information, images or other materials.
- Some cybercrimes do both -- i.e., target computers to infect them with a computer virus, which is then spread to other machines and, sometimes, entire networks.
- Cyber security refers to the body of technologies, processes, and practices designed to protect networks, devices, programs and data from attack, damage or unauthorized access.

What is Malware?

The term malware is a contraction of malicious software. Put simply, malware is any piece of software that was written with the intent of damaging devices, stealing data, and generally causing a mess. The following is a list of common types of malware:

- Virus: Like their biological namesakes, viruses attach themselves to clean files and infect other clean files. They can spread uncontrollably, damaging a **system's core functionality** and deleting or corrupting files. They usually appear as an executable file (.exe).
- Trojans: This kind of malware disguises itself as legitimate software, or is hidden in legitimate software that has been tampered with. It tends to act discreetly and create backdoors in your security to let other malware in.
- Spyware: It is malware designed to spy on you. It hides in the background and takes notes on what you do online, including your passwords, credit card numbers, surfing habits, and more.
- Worms: Worms infect entire networks of devices, either local or across the internet, by using network interfaces. It uses each consecutively infected machine to infect others.
- Ransomware: This kind of malware typically locks down your computer and your files, and threatens to erase everything unless you pay a ransom.
- Adware: Though not always malicious in nature, aggressive advertising software can undermine your security just to serve you ads — which can give other malware an easy way in.
- Botnets: Botnets are networks of infected computers that are made to work together under the control of an attacker.

CERT-In

CERT-In, operational since 2004, is the Indian Cyber Community. It is the national nodal agency for responding to computer security incidents as and when they occur.

Functions:

- ❖ Collection, analysis and dissemination of information on cyber incidents.
- ❖ Forecast and alerts of cyber security incidents
- ❖ Emergency measures for handling cyber security incidents
- ❖ Coordination of cyber incident response activities.
- ❖ Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.
- ❖ Such other functions relating to cyber security as may be prescribed.

Highlights

- ✓ A new strain of malware, named EventBot, is being spread across the internet through

unofficial app download websites with the key target of stealing the money.

- ✓ **EventBot** is a “mobile-banking Trojan and info-stealer that **abuses Android’s in-built** accessibility features to steal user data from financial applications, read user SMS messages and intercept SMS messages, allowing malware to bypass two-factor authentication.
- ✓ It has over 200 different financial applications under its target, including banking applications, money-transfer services, and cryptocurrency wallets, or financial applications based in the US and European region.
- ✓ CERT-In noted that EventBot has not been spotted on the official Google Play Store as of now but it can “**masquerade**” as a **genuine application to cheat users**.
- ✓ Once installed on a phone, the malware asks for **permissions such as “controlling system** alerts, reading external storage content, installing additional packages, accessing the internet, whitelisting it to ignore battery optimisation, auto-initiate upon reboot, read and receive SMS messages as well as **continue running and accessing data in the background”**.

Measures

- CERT-In has suggested certain counter-measures for Android phone users to save themselves from the virus infection. These steps include-
- Not downloading or installing applications from untrusted sources like unknown websites or links sent over mail or SMS.
- Users should also look at the app reviews, details, number of downloads, and user reviews of an app before downloading from the Play Store.
- Other security steps include installing an updated anti-virus solution and keeping their phone updated with the latest Android updates and patches.
- Users should also exercise caution while tapping on URLs and avoid using unsecured or unknown Wi-Fi networks.

PEPPER IT WITH
Information Technology Act
2000(IT Act 2000), National
Cyber Security Policy 2013,
National Cyber Coordination
Centre

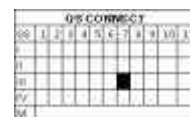
Conclusion

Malware are the privacy, security and financial threat for the public at large. In recent years, online activity has gradually been shifting from personal computers to mobile devices. Naturally, this resulted in the introduction of malware for mobile platforms, especially Android devices. As many people use their mobile devices for online shopping and even to manage their bank accounts, the mobile arena became increasingly profitable for cyber criminals. There is a need to create awareness about these threats to the end users.

Silent Hypoxia

News Excerpt

Many Covid-19 patients, despite having oxygen levels below 80 per cent, look fairly at ease and alert, according to multiple reports. This phenomenon has puzzled several medical practitioners.



Hypoxia

- Hypoxia is a condition wherein there is not enough oxygen available to the blood and body tissues. Hypoxia can either be generalised, affecting the whole body, or local, affecting a region of the body.
- Normal arterial oxygen is approximately 75 to 100 millimetres of mercury (mm Hg), and normal pulse oximeter readings usually range from 95 to 100 per cent. Values under 90 per cent are considered low.
- When levels fall below 90 per cent, patients could begin experiencing lethargy, confusion, or mental disruptions because of insufficient quantities of oxygen reaching the brain. Levels below 80 per cent can result in damage to vital organs.

What is Silent Hypoxia?

- COVID pneumonia — a serious medical condition found in severe Covid-19 patients — is preceded by ‘silent hypoxia’, a form of oxygen deprivation that is harder to detect than

regular hypoxia.

- In 'silent' or 'happy' hypoxia, patients appear to be less in distress. Many Covid-19 patients, despite having oxygen levels below 80 per cent, look fairly at ease and alert, according to multiple reports. This phenomenon has puzzled several medical practitioners.
- Those with oxygen levels below 70 or 60 % would ordinarily appear extremely ill, but not in silent hypoxia cases; patients have been reported sitting up in bed talking or operating mobile phones.

Highlights

- ✓ As medical practitioners around the world are busy treating people for Covid-19, many have reported a **condition called 'silent' or 'happy' hypoxia, in which** patients have extremely low blood oxygen levels, yet do not show signs of breathlessness.
- ✓ In many cases, Covid-19 patients with silent hypoxia did not exhibit symptoms such as shortness of breath or coughing until their oxygen fell to acutely low levels, at which point there was a risk of acute respiratory distress (ARDS) and organ failure.
- ✓ According to a report in *The Guardian*, the reason why people are left feeling breathless is not because of the fall in oxygen levels itself, but due to the rise in carbon dioxide levels that occur at the same time, when lungs are not able to expel this gas efficiently.
- ✓ Experts opines, this happens because in patients with COVID pneumonia, the virus causes air sacs to fall, leading to a reduction in levels of oxygen. However, the lungs initially do not **become stiff or heavy with fluid, and remain "compliant"** — being able to expel carbon dioxide and avoiding its build-up. Thus, patients do not feel short of breath.
- ✓ Silent hypoxia is not a new phenomenon and those with COVID-19 who are experiencing this will eventually feel the shortness of breath associated with the disease, as the lung damage becomes worse.
- ✓ If sick patients were given oxygen-monitoring devices called pulse oximeters to monitor their symptoms at home, they might be able to seek medical treatment sooner, and ultimately avoid the most invasive treatments.

COVID-19 pneumonia

It is a specific disease with peculiar phenotypes. Its main characteristic is the dissociation between the severity of the hypoxemia and the maintenance of relatively good respiratory mechanics.

Ultraviolet Germicidal Radiation

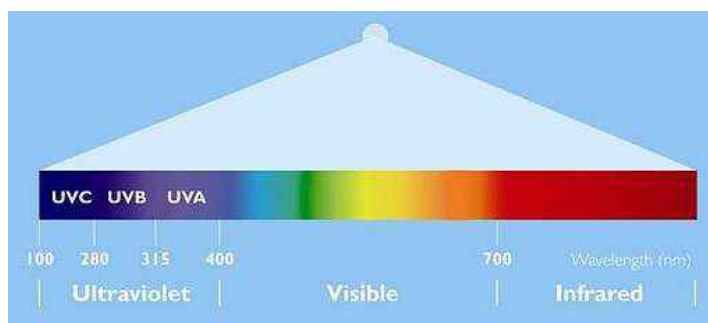
News Excerpt

Ultraviolet germicidal irradiation (UVGI) uses short-wave ultraviolet (UVC) energy to inactivate viral, bacterial, and fungal organisms so they are unable to replicate and potentially cause disease.

KSG CONNECT											
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What is Ultraviolet Germicidal Radiation (UVGI)?

- Ultraviolet light is a type of naturally present electromagnetic radiation that is in sunlight and actually makes up approximately 10% of the total light generated by the sun.
- UV light is electromagnetic energy with wavelengths shorter than visible light but longer than x-rays.
- The wavelength of this light ranges from 10 nm to 400 nm and is classified into three sub-bands; UV-A (near), UV-B (middle), and UV-C (far).
- UV light with wavelengths less than 290nm are considered to have "germicidal" properties. Earth's atmosphere absorbs ultramagnetic radiation with wavelengths less than 290nm, meaning that most of the UV-C and UV-B generated by the sun is blocked by our planet's ozone.
- After knowing the germicidal property of UV light, the first UV quartz lamp was invented in



1904 and resulted in the germicidal lamp. Germicidal lamps are a type of lamp that produce the wavelengths of ultraviolet light (UV-C; 200nm to 280nm) that have disinfection properties.

- UVGI is a method of disinfection that uses short wavelength ultraviolet light (UV-C) to inactivate or kill microorganisms and pathogens. Essentially, UVGI is the use of UV light with sufficiently short wavelengths to disinfect surfaces, air, and water.

Highlights

- Scientists are studying the use of ultraviolet germicidal radiation (UVGI) to detect the virus in schools, restaurants and other public places.
- While both UV-A and UV-B rays are harmful, exposure to UV-B rays can cause DNA and cellular damage in living organisms.
- Ultraviolet light kills cells by damaging their DNA. Exposure to the electromagnetic radiation (light) at certain UV wavelengths modifies the genetic material of microorganisms and destroys their ability to reproduce.
- The UV energy triggers the formation of specific thymine or cytosine dimers in DNA and uracil dimers in RNA, which causes the inactivation of microbes by causing mutations and/or cell death as well as failure to reproduce.
- **UVGI uses these “destructive properties” of UV light to target pathogens. It is thus considered effective in disinfecting the air and helps in preventing certain infectious diseases from spreading.**
- According to the US Centers for Disease Prevention and Control (CDC), UVGI is a promising method for disinfection but the efficacy of it depends on its dose. While using UVGI, it is important to consider factors such as the sensitivity of microorganisms to UVGI, the dose of UVGI required to kill them, humidity and weather conditions.
- Even so, using UVGI on a mass-scale, in public spaces such as schools, universities, restaurants and cinema halls may not be the most cost-effective way to approach disease prevention.

PEPPER IT WITH
Electromagnetic
spectrum, Visible
light

Disadvantages

- ✓ Depending on the wavelength and time of exposure, UV radiation may cause harm to the eyes and skin. Decreasing wavelengths correspond with higher frequency radiation and a higher amount of energy per photon.
- ✓ While UV-B radiation is widely recognized for its harmful effects on human skin and links to skin cancer, each of the UV bands (UV-A, UV-B and UV-C) create different risks for humans.
- ✓ UV-C causes acute effects include redness or ulceration of the skin. At high levels of exposure, these burns can be serious. For chronic (long-term) exposures, there is also a cumulative risk of premature aging of the skin and skin cancer.

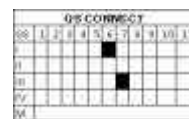
Conclusion

UVC exposure can be reduced through product safety design considerations and controls. Proper installation, monitoring, education of maintenance personnel, signage and use of safety switches can help to avoid overexposure. The operating instructions and recommendations for proper use of any UV system should be kept for reference to reduce hazardous exposure.

Disease Surveillance system

News Excerpt

The Ministry of Health and Family Welfare released a guidance document aimed at strengthening surveillance system and contact tracing mechanism in urban areas to improve preparedness and response to the COVID-19.



Pre-Connect

What is disease surveillance?

Disease surveillance is an information-based activity involving the collection, analysis and interpretation of large volumes of data originating from a variety of sources. The information collated is then used in a number of ways to

- o Evaluate the effectiveness of control and preventative health measures
- o Monitor changes in infectious agents e.g. trends in development of antimicrobial resistance
- o Support health planning and the allocation of appropriate resources within the healthcare system.
- o Identify high risk populations or areas to target interventions
- o Provide a valuable archive of disease activity for future reference.

To be effective, the collection of surveillance data must be standardized on a national basis and be made available at local, regional and national level.

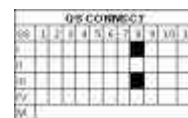
Highlights

- The surveillance system would include health workers in the health posts and dispensaries, auxiliary nurse midwives (ANMs), accredited social health activist (ASHAs), Anganwadi Workers, municipal health staff, sanitation staff, community health volunteers and other volunteers from organisations like National Service Scheme, National Cadet Corps and non-government organisations.
- In most of the cities/towns the disease surveillance system is not as well organized as in the rural areas. Hence the surveillance system shall be strengthened for surveillance and contact tracing mechanism.
- The chief medical officer or executive health officer will also organise an orientation training for the identified surveillance workers, which would emphasise on active case search, contact tracing, identification of high-risk individuals, addressing stigma, among others.
- The government has also directed the appointment of an incident commander for the urban areas, who will lead a coordination mechanism and oversee the planning, operation, logistics and finance teams to implement the preparedness.
- There may not be community level structures in these areas that can be transformed into designated health facilities; hence the existing facilities identified by the urban local body near to these settlements shall be earmarked as COVID care centers, dedicated COVID health center and dedicated COVID hospital.
- Such facilities will also be used as depot holder for hydroxychloroquine, masks, household disinfectants, among other supplies, while non-COVID services, especially immunization, management of communicable and non-communicable diseases, and maternal and child health services should continue to be provided in these areas.

Bay of Bengal Boundary Layer Experiment

News Excerpt

A team from Indian Institute of Science, Bengaluru and UK based University of East Anglia have created a blueprint for accurate prediction of monsoon, tropical cyclones and other weather-related forecast.



Pre-Connect

- The South Asian summer monsoon provides 80% of the annual rainfall for over one billion people, many of whom depend on monsoon rains for subsistence agriculture and freshwater.
- It is critical to forecast accurately not only the seasonal rainfall, but also rainfall variations within the summer. Sub-seasonal "active" and "break" phases can last weeks, resulting in floods and droughts across broad areas of South Asia.
- Air-sea interactions are key to understanding and predicting monsoon behaviour. Although air-sea interactions are important to the monsoon, weather predictions are made with models of only the atmosphere. There is potential to improve monsoon forecasts by including well-represented air-sea interactions in models.

What is Bay of Bengal Boundary Layer Experiment (BoBBLE)?

- It is a project funded by Union Ministry of Earth Sciences and the Natural Environment Research Council of UK.
- Its aim is to determine, quantify and model ocean-atmosphere interactions that drive variability in the South Asian monsoon.

- The study will improve the understanding about the role of thermodynamic surface and mixed layer processes in the monsoon as well as the role of large-scale ocean structure, ocean dynamics and ocean biogeochemistry in the monsoon.

Analytica

- ✓ The Bay of Bengal (BoB) plays a fundamental role in controlling the weather systems that make up the South Asian summer monsoon system. In particular, the southern BoB has cooler sea surface temperature (SST) that influence ocean-atmosphere interaction and impact on the monsoon.
- ✓ Ocean surface temperatures in the Bay of Bengal, east of India, remain very warm (above 28° C) throughout the summer. Evaporation from the Bay provides moisture and energy to monsoon depressions that form over the Bay and bring substantial rain to India.
- ✓ It is not understood how the Bay remains warm despite losing energy to these systems.
- ✓ Ocean temperature and salinity variations across the Bay are known to drive changes in rainfall over the Bay and surrounding land, but it is not clear how these arise or how they are maintained.
- ✓ BoBBLE is designed to deliver improvements to the forecasting of the monsoon rainfall, and thus will benefit those in Southeast Asian countries tasked with management of water resources.
- ✓ BoBBLE will deploy two ships, six ocean gliders and eight floats to collect an unprecedented range of oceanic and air-sea flux observations. These will measure ocean chlorophyll, which absorb sunlight and alter near-surface ocean temperature, influencing air-sea interactions.
- ✓ BoBBLE scientists will analyse these observations, along with routine datasets, to understand the evolution of conditions in the Bay and how they influence the atmosphere.



PEPPER IT WITH
Southwest monsoon,
SWAAMI, INCOMPASS

Conclusion

Academic researchers in the fields of climate science, meteorology and oceanography will benefit from the advances made and also the new techniques that BoBBLE will develop and apply. Some of these techniques will be specific to the local challenges of monsoon system in the Bay of Bengal, but others will be globally applicable.

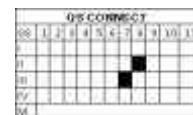
Research and Development in India

News Excerpt

India's gross expenditure in R&D has tripled between 2008 & 2018 driven mainly by Govt sector and scientific publications have risen placing the country internationally among the top few.

Pre-Connect

- The United Nations statistics division defines R&D as - **'Research and Development by a market producer is an activity undertaken for the purpose of discovering or developing new products, including improved versions or qualities of existing products, or discovering or developing new or more efficient processes of production'**
- The Research and Development (R&D) is an important contributor to economy of any



country and hence growth and sustainability of R&D vital for nations.

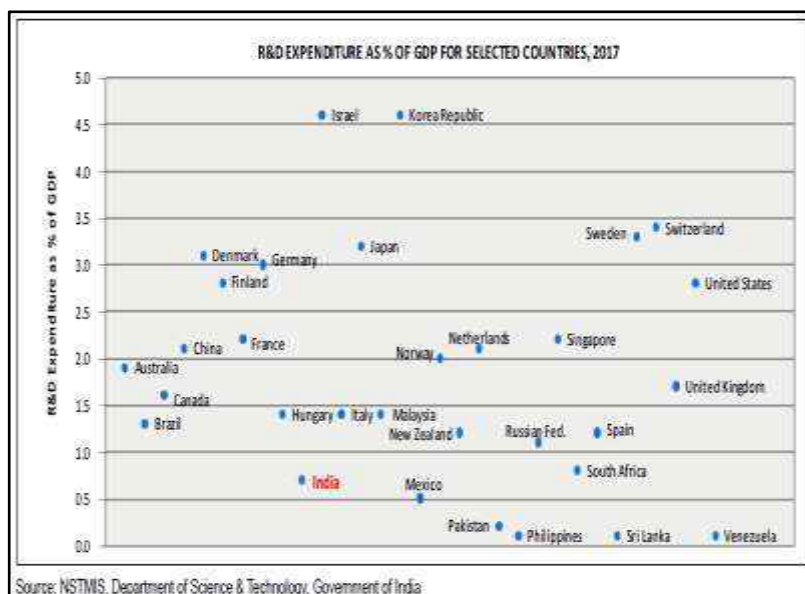
- As the pace of technology is accelerating and newer technologies and processes are becoming important, R&D is becoming a crucial factor in success of the companies and economies in a globalised and competitive world.
- Though R&D is generally undertaken by industry and academia, the government plays a key role in developing policies that foster R&D and its sustainability.

Highlights

- According to the national S&T survey 2018 brought out by the National Science and Technology Management Information (NSTMIS), Department of Science and Technology (DST), **India's gross expenditure in R&D has tripled between 2008 & 2018.**
- The report on R&D indicators for the nation is an extraordinarily important document for the evidence-based policymaking and planning in higher education, R&D activities and support, intellectual property, and industrial competitiveness.
- While it is heartening to see substantial progress in the basic indicators of R&D strengths such as the global leadership in the number of scientific publications, there are also areas of concern that need strengthening.
- The report shows that with the rise in publication, the country is globally at the 3rd position on this score as per the NSF database, 3rd in the number of Ph.D. in science & engineering. The number of researchers per million population has doubled since 2000.

Key Facts

- ✓ The Gross expenditure on R&D in the country has been consistently increasing over the years and has nearly tripled from Rs. 39,437.77 crore in 2007-08 to Rs. 1,13,825.03 crore in 2017-18.
- ✓ **India's per capita R&D expenditure has increased to PPP \$ 47.2 in 2017-18 from PPP \$ 29.2 in 2007-08.**
- ✓ India spent 0.7% of its GDP on R&D in 2017-18, while the same among other developing BRICS countries was Brazil 1.3%, Russian Federation 1.1%, China 2.1% and South Africa 0.8%.
- ✓ Women participation in extramural R&D projects has increased significantly to 24% in 2016-17 from 13% in 2000-01 due to various initiatives undertaken by the Government in S&T sector.
- ✓ As on 1st April 2018, nearly 5.52 lakh personnel were employed in the R&D establishments in the country.
- ✓ Number of researchers per million population in India has increased to 255 in 2017 from 218 in 2015 and 110 in 2000.
- ✓ **India's R&D expenditure per researcher was 185 ('000 PPP\$) during 2017-18 and was ahead of Russian Federation, Israel, Hungary, Spain and UK.**
- ✓ **India occupies 3rd rank in terms of number of Ph. D.'s awarded in Science and Engineering (S&E) after USA (39,710 in 2016) and China (34,440 in 2015).**
- ✓ During 2017-18 a total of 47,854 patents were filed in India. Out of which, 15,550 (32%) patents were filed by Indian residents.
- ✓ **According to WIPO, India's Patent Office stands at the 7th position among the top 10 Patent Filing Offices in the world.**



Opportunities in India

- Large and rapidly growing market for products.
- 100% foreign ownership and full repatriation of capital and profits.
- R&D programs under the chapter of trade in services of WTO
- Large pool of English-speaking skilled manpower
- Telecom infrastructure comparable to that in many countries.
- Geographical location enabling 24x7 service offerings.
- Good regulatory framework.
- A very favourable tax regime for R & D
- A very well-balanced IPR regime in India

Challenges

- ↔ Very low public investment in R&D as compared to other major economies.
- ↔ **Majority of the patents filed in India are owned by MNC's, less than 10 % is owned by Indian companies.**
- ↔ The linkages between academia and private industry are still weak compared to Europe or America.
- ↔ Private research and development do not have a long tradition.
- ↔ Venture capital is a growing but underdeveloped sector in India.
- ↔ Indian education system is extremely diverse in standards and R&D in Indian universities is a very small part of innovation in India.
- ↔ Qualified staff is still a limited resource. Lack of skill in the work force.
- ↔ India has an estimated full-time equivalent R&D professional strength of only 150 professionals per million
- ↔ Indian research is mostly skewed towards basic research and lacks in application-oriented R&D. The vast majority of organizations would rather go for quick acquisition of technology rather than invest in internal R&D.
- ↔ Academic institutions and many public research centers focus on advancing the science, focusing on patenting and publishing, very little systematic attention is being spent in applied R&D.
- ↔ Inadequate enforcement of intellectual property rights (IPR). While India has improved its IPR regime, the protection of intellectual property remains weak in some areas owing to inadequate laws and ineffective enforcement.

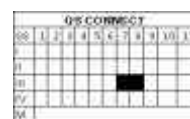
Way Forward

- ◇ India is a strong contender in the field of Global R&D. For India to derive maximum growth and sustainability of R&D, its R&D fundamentals have to be strong and excellent.
- ◇ To sustain high rate of growth of economy and to establish itself as a global R&D and innovation hub, India needs to pay serious attention to R&D.
- ◇ India need to increase the public expenditure on the R&D.
- ◇ The linkages between industry and academia need to be made stronger.
- ◇ In the field of education, R&D and research-based curriculum should start at early stages and more foreign universities should be allowed to enter.
- ◇ The industry needs to move away from the quick acquisition of technology and invest in internal R&D.

Quantum Entanglement

News Excerpt

In a step toward a quantum internet that could link cities of the future, **scientists entangled quantum “hard drives” connected across distances of tens of kilometres.**



Pre-Connect

- Quantum entanglement is a process by which microscopic objects like electrons or atoms

lose their individuality to become better coordinated with each other.

- Entanglement is at the heart of quantum technologies that promise large advances in computing, communications and sensing, for example detecting gravitational waves.
- Entanglement, a type of ethereal quantum connection, allows two particles to behave as if intertwined even when distantly separated.
- Quantum entanglement has applications in the emerging technologies of quantum computing and quantum cryptography, and has been used to realize quantum teleportation experimentally.

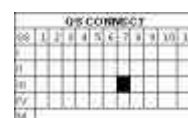
Highlights

- The new study entangled two devices called quantum memories using particles of light that were shuttled across a longer distance than ever before.
- **Like a hard drive in a computer, quantum memories store quantum information. They're a necessary part of building a quantum internet, which would facilitate ultra-secure communication and allow distant quantum computers to work together.**
- To be most useful, quantum networks would need to span the globe. Scientists previously have entangled individual particles of light, or photons, separated by 1,200 kilometres. But **that entanglement couldn't be stored. Distant quantum memories** could help preserve entanglement over long distances.
- In the new study, the researchers entangled quantum memories that, although physically located near one another, required photons to detour either 22 or 50 kilometres through optical fibers to produce the entanglement, depending on the experiment.
- Made of clouds of laser-cooled rubidium atoms, the quantum memories were first entangled with photons. After traveling for kilometers, those photons were made to interfere with one another and then measured.
- That interaction caused the two memories to become entangled, showing that quantum memories can go the distance.
- But one problem is that this link between particles is very fickle, so tiny disturbances from other particles or events can disentangle them. To prevent that from happening, most experiments and technologies that use quantum entanglement can only work at ultracold temperatures – close to absolute zero (-273.15 °C, -459.67 °F). At that point almost all **movement stops, so there's no disturbances to break the link.**

Smallpox

News Excerpt

The World Health Organisation (WHO) and the UN's postal agency has released a commemorative postage stamp on the 40th anniversary of the eradication of smallpox.



What is Smallpox?

- Before smallpox was eradicated, it was a serious infectious disease caused by the variola virus. It was contagious—meaning, it spread from one person to another. People who had smallpox had a fever and a distinctive, progressive skin rash.
- Most people with smallpox recovered, but about 3 out of every 10 people with the disease died. Many smallpox survivors have permanent scars over large areas of their body, especially their faces. Some are left blind.
- Thanks to the success of vaccination, smallpox was eradicated, and no cases of naturally occurring smallpox have happened since 1977.
- In 1980, the World Health Assembly declared smallpox eradicated – the only infectious disease to achieve this distinction.

Global Smallpox Eradication Program

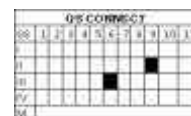
- In 1959, the World Health Organization (WHO) initiated a plan to rid the world of smallpox. Unfortunately, this global eradication campaign suffered from lack of funds, personnel, and commitment from countries, as well as a shortage of vaccine donations.
- Despite their best efforts, smallpox was still widespread in 1966, causing regular outbreaks in multiple countries across South America, Africa, and Asia.

- The Intensified Eradication Program began in 1967 with a promise of renewed efforts. This time, laboratories in many countries where smallpox occurred regularly (endemic countries) were able to produce more, higher quality freeze-dried vaccine.
- A number of other factors also played an important role in the success of the intensified efforts, including the development of the bifurcated needle, establishment of a surveillance system to detect and investigate cases, and mass vaccination campaigns, to name a few.
- By the time the Intensified Eradication Program began in 1967, smallpox had already been eliminated in North America (1952) and Europe (1953), leaving South America, Asia, and Africa (smallpox was never widespread in Australia). The Program made steady progress toward ridding the world of this disease, and by 1971 smallpox was eradicated from South America, followed by Asia (1975), and finally Africa (1977).

ICUBE Report

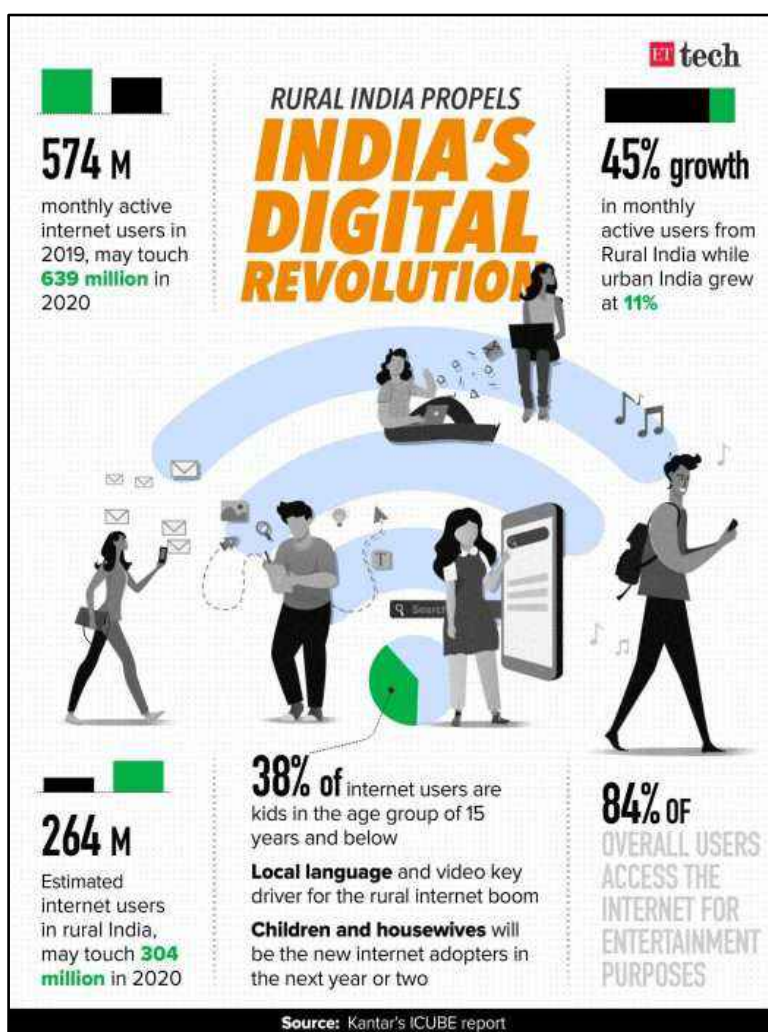
News Excerpt

Kantar released its ICUBE 2019 report on digital adoption and usage trends in India. The annual tracking study gauges the changing digital ecosystem in India, measuring Internet usage by demographic, activity and device segments.



Highlights

- Estimated at 574 million, the number of monthly active Internet users have registered an annual growth of 24% indicating an overall penetration of 41% in India.
- The report projects 11% growth for 2020; estimates 639 million monthly active Internet users.
- **India's digital revolution** continues to be propelled by the rural masses — Rural India registered a 45% growth in the monthly active internet users in 2019. It is now estimated that there are 264 million internet users in rural India, and this is expected to reach 304 million in 2020.
- The digital base in India has achieved a strong growth with the addition of over 112 million users last year.
- ICUBE 2019 reports a growth of more than 60% in the daily Internet users in the last one year; almost 9 out of 10 active internet users were accessing the internet daily owing to entertainment and communication needs. About 84% users access the internet for entertainment purposes.
- At 38% growth year on year, school going children segment in the age group of 15 years or below has shown a promising growth on the internet usage. Access to information and education, social media, gaming and entertainment, especially, Sports, are driving the adoption.



- The new decade is expected to witness the next wave of Digital India aided by the recent COVID-19 pandemic that has catalysed the speed at which the already connected consumer is getting further connected with devices, payments, e-medicine, etc.

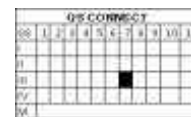
Way Forward

- Children and housewives will be the new internet adopters in the next year or two. Most of these users already have Internet at home, and it will be more about breaking the mindset barriers to access the web. With the availability of curated content for these groups, the adoption will be considerably faster amongst these segments.
- Video, Voice and Vernacular (3 Vs) will be significant usage factors for the Internet users. These will drive higher engagement and frequency of usage, thereby, helping the users mature in their Internet journey.
- IoT and Smart Devices will make the internet as much a household phenomenon as it is an individual phenomenon.

Zoonotic diseases

Thematic Connect

In the first 20 years of the 21st century, the world has seen outbreaks of avian influenza, Ebola virus disease, Zika virus disease, Nipah virus disease, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Disease (MERS) and now, the novel coronavirus disease (COVID-19), caused by zoonotic diseases.



What are Zoonotic diseases?

- Animals provide many benefits to people. Many people interact with animals in their daily lives, both at home and away from home.
- However, animals can sometimes carry harmful germs that can spread to people and cause illness – these are known as zoonotic diseases or zoonoses.
- Zoonotic diseases are caused by harmful germs like viruses, bacterial, parasites, and fungi. These germs can cause many different types of illnesses in people and animals, ranging from mild to serious illness and even death.
- The greatest risk for zoonotic disease transmission occurs at the human-animal interface through direct or indirect human exposure to animals, their products (e.g. meat, milk, eggs, etc.) and/or their environments.
- Scientists estimate that more than 6 out of every 10 known infectious diseases in people can be spread from animals, and 3 out of every 4 new or emerging infectious diseases in people come from animals.

Spread of germs between animals and people

- Direct contact: Coming into contact with the saliva, blood, urine, mucous, faeces, or other body fluids of an infected animal. Examples include petting or touching animals, and bites or scratches.
- Indirect contact: Coming into contact with areas where animals live and roam, or objects or surfaces that have been contaminated with germs. Examples include aquarium tank water, pet habitats, chicken coops, barns, plants, and soil, as well as pet food and water dishes.
- Vector-borne: Being bitten by a tick, or an insect like a mosquito or a flea.
- Foodborne: Each year, 1 in 6 Americans get sick from eating contaminated food. Eating or drinking something unsafe, such as unpasteurized (raw) milk, undercooked meat or eggs, or raw fruits and vegetables that are contaminated with faeces from an infected animal. Contaminated food can cause illness in people and animals, including pets.
- Waterborne: Drinking or coming in contact with water that has been contaminated with faeces from an infected animal.

Who is at a higher risk of serious illness from zoonotic diseases?

Anyone can get sick from a zoonotic disease, including healthy people. However, some people are more at risk than others and should take steps to protect themselves or family members. These people are more likely than others to get really sick, and even die, from infection with

certain diseases. These groups of people include:

- Children younger than 5
- Adults older than 65
- People with weakened immune systems
- Pregnant women

Rising Zoonotic Concerns

- ✓ Zoonotic diseases are a major human health concern for two reasons: Incidences of zoonotic diseases are increasing in frequency; and it's difficult to predict where they're going to show up.
- ✓ One of the simplest reasons could be that people are invading animal habitats more often, which facilitates more interactions between humans and animals.
- ✓ Certain cultural practices may also be contributing to more zoonotic diseases. Putting pressure on the environment through hunting and development throws the ecosystem off balance and makes it harder for animals to survive as they were.
- ✓ Deforestation has led to the destruction of the habitat of animals. The animals are forced to travel farther and search harder for food or mates, and in this chronically stressed condition, those animals are more susceptible to disease and more likely to spread disease to humans. Such hunting practices also provide more opportunities for people to become exposed to zoonotic diseases.
- ✓ Another potential reason why zoonotic disease is on the rise is that people are more connected to one another now than ever before, providing more opportunities for zoonotic disease to spread far from wherever it originated.

Prevention Measure

- **Keep hands clean.** Washing your hands right after being around animals, even if you didn't touch any animals, is one of the most important steps you can take to avoid getting sick and spreading germs to others.
- Many germs are spread by not washing hands properly with soap and clean, running water.
- If soap and water are not readily available, you can use an alcohol-based hand sanitizer that contains at least 60% alcohol.
- Prevent bites from mosquitoes, ticks, and fleas.
- Learn more about ways to handle food safely—**whether it's for yourself or your family, your pet, or other animals.**
- Be aware of zoonotic diseases both at home, away from home (such as at petting zoos or other animal exhibits), in childcare settings or schools and when you travel.

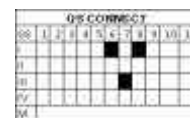
Highlights

- ↔ Between 2002-03, SARS — caused by SARS CoV virus — infected 8,422 people and killed 914. The MERS outbreak — caused by MERS CoV virus — which came a decade later, infected 1,791 and killed 640 people between 2012 and 2016.
- ↔ The SARS-COV-2 virus is much more contagious, with over 3 million cases in five months, but is less deadly with a mortality rate of 2-5 per cent as compared to SARS (9.5 per cent) and MERS (34 per cent).
- ↔ The ability of the virus to transmit from human to human is what makes COVID-19 so contagious as opposed to SARS or MARS viruses which could not.
- ↔ Environmental factors like temperature, ultraviolet radiation, relative and absolute humidity, and air ventilation or air movement are important drivers influencing virus viability in the air. Factors like temperature and humidity impact the size of droplets, which in turn, affect the viability of the virus.
- ↔ Zoonotic diseases are so dangerous because they are novel and highly unpredictable. Because they jump from animals to humans, our immune system is unable to fight them. And because they are unpredictable, no one knows when a localised outbreak can turn into a pandemic.

Heat Waves

News Excerpt

The Indian Meteorological Department issued a heatwave alert for Rajasthan, Delhi, Uttar Pradesh, Madhya Pradesh, Punjab, Odisha and Telangana in month of May.



What are Heat waves?

- A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season.
- In India, heat Waves typically occur between March and June, and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.
- The Indian Meteorological Department (IMD) has given the following criteria for Heat Waves:
 - Heat Wave need not be considered till maximum temperature of a station reaches at least 40°C for Plains and at least 30°C for Hilly regions.
 - When normal maximum temperature of a station is less than or equal to 40°C Heat Wave Departure from normal is 5°C to 6°C Severe Heat Wave Departure from normal is 7°C or more
 - When normal maximum temperature of a station is more than 40°C Heat Wave Departure from normal is 4°C to 5°C Severe Heat Wave Departure from normal is 6°C or more
 - When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared.
- Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year, and have a devastating impact on human health thereby increasing the number of heat wave casualties.
- Heat waves occur wherever a mid-level high-pressure system develops over an area. This high-pressure system forms a "cap" over the affected area, trapping heat that would otherwise rise into the air to cool off before circulating back to the surface. This reduces the chance for precipitation to form, and the result is just a continual build-up of heat.
- These high-pressure systems are slower to change during the summer. This means the heat can linger on and on, and why temperatures may not cool off enough at night to offer a sense of relief.

Impacts of Heat Waves

- The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:
 - Heat Cramps: Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
 - Heat Exhaustion: Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
 - Heat Stoke: Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potentially fatal condition.
- The heat-related social impacts are not evenly distributed across populations. Wealthier people have greater opportunities, compared to poor populations, to access water, cool environments, air conditioning and/or relocate, thereby exacerbating social and economic inequalities.
- Poor neighbourhoods and informal settlements, such as slums that today house more than 800 million people globally, are more often exposed to environmental risks like heat. Droughts increasingly accompany heatwaves and can lead to violence over scarce resources.
- Multiple areas of the economic sector experience reduced worker productivity during

heatwaves, especially agriculture and construction. Globally, 2% of total working hours is projected to be lost every year, either because it is too hot to work or because workers have to work at a slower pace.

- The agricultural sector, where 940 million people earn their livelihood, is set to be harder hit by hotter temperatures, pushing workers, crops and livestock past their physiological heat and drought tolerances. This will result in lost labour, in smaller harvests for farmers, higher prices for consumers, and negative impacts on livelihoods.
- A World Bank report suggests that by 2050, about 600 million Indians will live in places that could experience loss of living standards, which could cost 2.8% of the GDP.
- Increasing energy demand for cooling also comes as an extensive economic cost to residents, businesses, and governments. Often energy grids are unable to supply the required power for air conditioning in cities during heatwaves. This results in not only increased emissions from carbon-based energy sources, but the failure of power grids, loss of power to businesses, hospitals, and critical infrastructure – compounding loss of productivity, increased costs for the energy sector, and reduced access to life-saving cooling and medical care.
- Heatwaves, without concomitant increases in precipitation, can lead to water shortages and increased stress for plants, particularly in arid regions. This has the effect of reducing plant growth with an overall drying-out of the landscape.
- These hot and dry conditions are favourable to the start and rapid spread of forest fires, which now regularly accompany heatwaves.
- Heatwaves can also dry up shallow aquatic ecosystems and accelerate glacier melt.

Measures

To minimise the impact during the heat wave and to prevent serious ailment or death because of heat stroke, you can take the following measures:

- ✓ Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- ✓ Drink sufficient water and as often as possible, even if not thirsty
- ✓ Wear lightweight, light-coloured, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- ✓ Avoid strenuous activities when the outside temperature is high. Avoid working outside between 12 noon and 3 p.m.
- ✓ While travelling, carry water with you.
- ✓ Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.
- ✓ Avoid high-protein food and do not eat stale food.
- ✓ If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs
- ✓ Do not leave children or pets in parked vehicles
- ✓ Keep animals in shade and give them plenty of water to drink.
- ✓ Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- ✓ Use fans, damp clothing and take bath in cold water frequently.

Highlights

- Several parts of north India have been reeling under an intense heat wave. Many districts in Rajasthan, Haryana, Uttar Pradesh, Madhya Pradesh have been posting temperatures over 45 degrees Celsius or five degrees above what is normal.
- The maximum temperature in Delhi settled six degrees Celsius above the normal at 46, making May 26, 2020 the hottest day the national Capital has seen in May in 18 years.
- Churu in Rajasthan state recorded a temperature of 50°C - India's highest.
- The heat wave has been caused by the dry north-westerly winds that started blowing on May 21 causing a gradual rise in temperature.
- But heat wave-related death tolls and destruction are not always immediately obvious. Heat waves are a significant cause of weather-related mortality.
- According to the World Health Organisation, more than 1,66,000 people died due to heat waves from 1998-2017.
- The Indian heat wave of 2015 killed more than 2,500 people. According to EM-DAT, the

International Disaster Database, it was the fifth deadliest heat wave in world history.

Way Forward

The heat-wave action plan is intended to mobilize individuals and communities to help protect their neighbours, friends, relatives, and themselves against avoidable health problems during spells of very hot weather. The Government agencies will have a critical role to play in preparing and responding to heat-waves at a local level, working closely with health and other related departments on long term strategic plan.

- ↔ Establish Early Warning System and Inter-Agency Coordination to alert residents on predicted high and extreme temperatures. Who will do what, when, and how is made clear to individuals and units of key departments, especially for health.
- ↔ Capacity building / training programme for health care professionals at local level to recognize and respond to heat-related illnesses, particularly during extreme heat events. These training programmes should focus on medical officers, paramedical staff and community health staff so that they can effectively prevent and manage heat-related medical issues to reduce mortality and morbidity.
- ↔ Public Awareness and community outreach Disseminating public awareness messages on how to protect against the extreme heat-wave through print, electronic and social media and Information, Education and Communication (IEC) materials such as pamphlets, posters and advertisements and Television Commercials (TVCs) on Do's and Don'ts and treatment measures for heat related illnesses.
- ↔ Collaboration with non-government and civil society: Collaboration with non-governmental organizations and civil society organizations to improve bus stands, building temporary shelters, wherever necessary, improved water delivery systems in public areas and other innovative measures to tackle Heat wave conditions.

Cicadas

News Excerpt

A brood of periodical cicadas, noisy insects that breed underground for as long as 13-17 years are expected to emerge into some states on the east coast of the US this year.

Pre-Connect

- Cicadas are insects that spend most of their lives underground and emerge from the soil mainly to mate. Once out of the ground, their life span is fairly short, somewhere between two-four weeks.
- There are three species of 17-year cicadas and three species of 13-year cicadas. The name 13 and 17 year refers to the number of years that cicada nymphs take to reach adulthood.
- There are about 15 active broods of these cicadas as some **have gone extinct. The insects are found in the America's** as well as New Zealand and Australia.
- It is not clear why their development period is so long; researchers suspect that it may be linked to avoiding predators above the soil. During this time underground the nymphs feed on sap from plant roots.
- After this developmental period, the cicada nymphs **construct a "cicada hut" and burrow their way out from the soil and climb onto any nearby tree or vegetation.**
- After emerging from the ground in billions, the cicadas shed their exoskeletons or outer skins to take their winged form. Their exoskeletons are frequently found attached to tree trunks and twigs.
- **Male cicadas "sing" to attract the females, the** collective chorus of these male cicadas is very loud and can reach up to 100 decibels, which is as much as a powered lawnmower.
- After mating, the females lay their eggs in twigs that are $\frac{1}{2}$ to $\frac{1}{4}$ in diameter. One female is capable of laying over 400 eggs in 40-50 different sites. The eggs remain in the twigs for six

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to ten weeks before they hatch and after hatching the nymphs fall to the ground where they burrow 6-18 inches underground to feed and emerge 13 or 17 years later, depending on their grouping.

- The egg-laying by the cicadas causes significant damage to small twigs. They damage many ornamental and hardwood trees, especially newly planted fruit and ornamental trees such as apple, dogwood, peach, cherry and pear among others, which are the most seriously damaged.

Highlights

- Following a 17-year period of underground development, periodical cicadas are set to burst above ground in the coming days and weeks, with three states in particular expected to be hotspots for the bugs to emerge and sing their own song of summer.
- **This year's emergence is classified as Brood IX and the largest quantity of the insects is expected across parts of north-western North Carolina, southwestern Virginia and south-eastern West Virginia.**
- The bugs typically arrive in mid-May and can continue to come out through early July. And, while the mid-May cold snap felt across the Midwest, Northeast and mid-Atlantic could delay their full emergence.
- **While underground, cicadas aren't simply hibernating. They feast on tree roots to detect what's going on above, and spend time digging tunnels.**

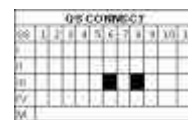
Antarctic Impulsive Transient Antenna

News Excerpt

One of the more recent neutrino mysteries started when some neutrinos were detected by the Antarctic Impulsive Transient Antenna (ANITA).

Pre-Connect

- The ANITA instrument is a radio telescope to detect ultra-high energy cosmic-ray neutrinos from a scientific balloon flying over the continent of Antarctica. ANITA is the first NASA observatory for neutrinos of any kind.
- It involves an array of radio antennas attached to a helium balloon which flies over the Antarctic ice sheet at 37,000 meters.
- The height is important here to shut out all other "noises" so that the ANITA antennas can "listen" to the cosmos and detect high-energy particles, known as neutrinos, which constantly bombard the planet.
- The signals were detected to have been bouncing off the ice and were to be tracked as they were on their way down or back up after the bounce off the ice shelf.
- Scientists were intrigued when during flights in December 2006 and December 2014, ANITA detected a fountain of high-energy particles erupting from the ice - much like an upside-down cosmic-ray shower.
- The ANITA instrument detects the ultra-high energy neutrinos by use of the Askaryan effect. This effect predicts the production of a coherent radio emission from the cascade of particles produced in a high-energy particle interaction.



Neutrinos

Neutrinos are high-energy particles that pose no threat to us and pass through most solid objects without anyone even noticing. They have a tiny mass, no electric charge. Neutrinos constantly bombard Earth and as per some estimates emerging from studies, 100 trillion neutrinos pass through the human body every second. Neutrinos were produced by the big bang, and are still being produced by everything from stars to supernovae.

Rarely do they interact with matter. But if they do smash into an atom, they produce a shower of secondary particles we can detect, which allows us to probe where they came from in the universe. ANITA detects neutrinos pinging in from space and colliding with matter in the Antarctic ice sheet. Neutrinos are of great interest to astrophysicist as they are the only particle that can reach earth unattenuated at all energies.

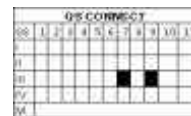
Highlights

- Earlier this year ANITA detected strange signals that seemed to be triggered by extremely high energy neutrinos. These neutrinos had such high energies that they seemed to defy the standard model of particle physics.
- High energy neutrinos have also been detected by the IceCube neutrino detector in **Antarctica**. **These aren't quite as energetic as the ones detected by ANITA, but they could** provide clues as to how high-energy neutrinos are produced.
- Supermassive black holes, which may be the source of high energy neutrinos, are gravitational powerhouses. When hot gas surrounding them is squeezed by gravity and electromagnetic fields, it can emit tremendous amounts of energy, including high-energy neutrinos.
- So, the team compared four dozen IceCube neutrino detections with radio observations from the Russian RATAN-600 radio telescope. They found that neutrinos were detected at times when a quasar experienced a radio flare.
- The most likely explanation is that when quasars are particularly active, bursts of gamma rays are produced within the radio flare. The gamma rays collide with surrounding atoms, triggering a burst of neutrinos. Since the neutrinos travel at nearly the speed of light, they arrive at Earth at the same time as the radio burst.
- However, this is only an initial study, and it solves part of the high-energy neutrino mystery. We now know one way that these neutrinos can be produced, but the origin of the most energetic of neutrinos remains unknown.

Bharat Stage VI

News Excerpt

The government has notified Bharat Stage (BS)-VI emission norms for quadricycles, paving the way for higher production of the new category of vehicle that was introduced less than two years ago.



Pre-Connect

- Bharat emission standards are the standards set up by the Indian government which specify the amount of air pollutants from internal combustion engines, including those that vehicles can emit.
- If these emit more pollutants than **the prescribed limit, they don't get** a clearance to be sold in an open market.
- Bharat Stage Emission Standards have been instituted by the Central Pollution Control Board (CPCB), instituted within the Ministry of Environment Forests and Climate Change.
- Vehicle emission norms were introduced in India in 1991 for petrol and in 1992 for diesel vehicles. Since 2000, Euro norms are followed in India under the name Bharat Stage Emission Standards for four wheeled vehicles.
- Bharat stage III norms have been enforced across India since October 2010. In a few cities, Bharat stage IV norms are in place since April 2010. Bharat stage IV is proposed to be enforced throughout India by April 2017.
- In 2017, the Union government gave only three years to the automobile industry and refineries to achieve directly BS VI standards skipping BS V.
- Upgrading the emission norms requires the manufacturing companies to upgrade their

Indian Emission Standards (4-Wheel Vehicles)			
Standard	Reference	YEAR	Region
India 2000	Euro 1	2000	Nationwide
Bharat Stage II	Euro 2	2001	NCR*, Mumbai, Kolkata, Chennai
		2003.04	NCR*, 13 Cities†
		2005.04	Nationwide
Bharat Stage III	Euro 3	2005.04	NCR*, 13 Cities†
		2010.04	Nationwide
Bharat Stage IV	Euro 4	2010.04	NCR*, 13 Cities†
Bharat Stage V	Euro 5	(to be skipped)	
Bharat Stage VI	Euro 6	2020.04 (proposed)	Entire country
* National Capital Region (Delhi)			
† Mumbai, Kolkata, Chennai, Bengaluru, Hyderabad, Ahmedabad, Pune, Surat, Kanpur, Lucknow, Sholapur, Jamshedpur and Agra			

technology, which in turn increases the cost of the vehicle.

- Cost is one of the main reasons for the slow upgrade of emission standards. However, there are also arguments that the increase in cost is made up by savings in health costs as the pollutants causing diseases are decreased with the upgrade in emission standards.
- Fuels also play a crucial role in meeting these emission norms. Fuel specifications have also been aligned to its corresponding European production norms.

Highlights

- India is now in the unparalleled rank of being the only country in the world to have side stepped Bharat Stage V (BS V) emissions standards to leapfrog directly from BS IV to BS VI emissions standards.
- All new vehicles to be sold from April 1, 2020 onwards will comply with the new standards, except the small window of relaxation granted by the Supreme Court under the current pandemic circumstances. The window allows industry to sell only 10 per cent of their older BS IV stock by May 31, 2020.
- The public health imperative of this move was well-established by the Supreme Court ruling of October 24, 2018, that had additionally denied any extra time for this transition.
- Health benefit of this fuel and emissions standard roadmap as estimated by the International Council on Clean transportation shows this can avoid 280,000 cumulative premature deaths in India by 2030.

Benefits of BS VI

- ✓ New-generation vehicles will now be significantly cleaner than the BS IV vehicles. Particulate matter limit for different segments of diesel cars will be 82 to 93 % (50-67% for buses and trucks) lower than the BS IV level. Nitrogen oxide emissions limit will be 68 per cent lower.
- ✓ Diesel norms are becoming so stringent and expensive to meet that reportedly over 40 cars and SUVs will be phased out from the market. Small diesel cars will be more widely hit.
- ✓ Even though the maximum emissions benefits come from combined introduction of BS VI fuels and vehicle technology, drastic cut in fuel sulphur to 10 ppm will also reduce particulates and sulphur dioxide emissions. Existing vehicles will perform better and excessive engine wear, deposits and corrosion will reduce.
- ✓ The most significant change will be in diesel emissions control systems. These include advanced particulate filters for particulate control; and lead NOx traps, selective catalytic reduction (SCR) and exhaust gas recirculation for NOx control. These are hugely sensitive and need high level of maintenance.
- ✓ As opposed to the current practice of only measuring mass emissions in the laboratory, vehicles will also be driven on roads fitted with portable emissions monitors to measure emissions in real world conditions following a certain driving pattern.
- ✓ Requirements for two wheelers are becoming almost as exacting as cars. Evaporative emissions standards already in place for four wheelers, will apply to two wheelers as well to measure and control fuel vapours from engines.
- ✓ Currently, there are no checks on mass emissions from vehicles after they are certified and sold. But now, in-service regulations will require benchmarks for performance of vehicles over their useful life on-road. For this, conformity factor will be introduced. Real world emissions check on-road will happen post-2023.

Road to Reform

Stage	Date	CO	HC	HC+NOx	NOx	PM	PN
		g/km					#/km
COMPRESSION IGNITION (DIESEL)							
BS IV	2010	0.5	-	0.3	0.25	0.025	
BS VI	2020	0.5	-	0.17	0.08	0.0045	6.0x10 ¹¹
Euro 6	2014	0.5	-	0.17	0.08	0.005	6.0x10 ¹¹
POSITIVE IGNITION (GASOLINE)							
BS IV	2010	1	0.1	-	0.08	-	
BS VI	2020	1	0.1	-	0.06	0.0045	6.0x10 ¹¹
Euro 6	2014	1	0.1	-	0.06	0.005	6.0x10 ¹¹

Way Forward

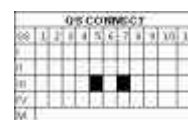
- While India has aligned with most of the reform packages of Europe introduced to control diesel-gate after the introduction of basic Euro VI in Europe in 2014, there are still some gaps.

- The BS VI vehicle is a new standard in town. State transport departments need to upgrade on-road emissions surveillance. Even though Pollution Under Control (PUC) certificate norms have been tightened for BS VI vehicles.
- Cities will need a checklist of physical checks of emissions control equipment fitted by the manufacturer to check if these are missing or tampered with. Like Kolkata and the pilot programme in Delhi, cities need to begin remote sensing measurements for high level fleet screening.
- Consumers should understand that big diesel vehicles will come fitted with semiconductor-controlled rectifier in the exhaust system. This will require periodic filling of auto grade urea tank as urea is sprayed on exhaust to neutralise NOx.
- At Rs. 40 per litres for auto grade urea, refill will be needed after every 1,000 km in trucks depending on the pattern of usage. This will increase vulnerability to fraud and tampering, as global experience shows. People often try to disable these systems to avoid the recurring costs of refilling urea. This can lead to uncontrolled NOx emissions.
- Currently, oil companies are setting up auto grade urea dispensing systems in their fuel retail outlets. There are concerns regarding the quality control of the product. Even though there are product standards, this needs a proper certification system for the sellers of urea.
- People, especially bus and truck operators, need to understand the dangers of tampering with advanced and sophisticated emissions control systems.

Active Pharmaceutical Ingredient

News Excerpt

Export of active pharmaceutical ingredient (API) of paracetamol from the country is all set to resume with the Centre moving it out of the 'restricted for export' list.



What is active pharmaceutical ingredient (API)?

- Active pharmaceutical ingredient (API), is the term used to refer to the biologically active component of a drug product (e.g. tablet, capsule).
- Drug products are usually composed of several components. The aforementioned API is the primary ingredient. Other ingredients are commonly known as "excipients" and these substances are always required to be biologically safe.
- The procedure for optimizing and compositing this mixture of components used in the drug is known as "formulation."

Highlights

- More than two months ago, the raw material of the common fever medication as well as 12 other APIs and formulations made from them were not allowed to be exported by the government amid the COVID-19 outbreak.
- The Pharmaceuticals Export Promotion Council of India, a body under the Union Ministry of Commerce and Industry, had opposed the restriction on exports stating the move will impact the commitments made by exporters and not complying with them may result in complications for them.
- About 40% of the paracetamol API manufactured in the country is consumed in the domestic market, while the rest is meant for exports. There are enough supplies to meet any increase in domestic demand.

Analytica

- ✓ Despite being a leading supplier of high-quality medicines to several countries, Indian pharmaceutical industry is highly dependent on China for raw materials even to produce medicines as basic as Crocin.
- ✓ Indian drug-makers import around 70 per cent of their total bulk drug requirements from China.
- ✓ During the early 90s, India was self-reliant in manufacturing APIs. However, with the rise of China as a producer of API, it captured the Indian market with cheaper products and it eventually led to high economies of scale for China.

- ✓ When China entered the market, it started selling APIs, which were 40 per cent cheaper than Indian APIs. But with an increase in the cost of labour in China, Chinese APIs are now cheaper by 20 per cent than Indian APIs.
- ✓ Chinese industries were backed by the low cost of capital followed by aggressive government funding models, tax incentives. Their cost of operation is one-fourth of India's cost. Even the cost of finance in China is 6-7 per cent against India's 13-14 per cent.
- ✓ So, due to low-profit margins and non-lucrative industry, Indian pharma companies over the years stopped manufacturing APIs.
- ✓ Not just APIs, India even stopped producing materials used to manufacture APIs, which are called intermediates.
- ✓ If the cost of production for API will be higher, it would hamper the export competitiveness of the products.
- ✓ In 2015-16, the Katoch committee report had recommended how India can reduce its import dependence on APIs, but the recommendations, including opening API parks or providing tax incentives, have hardly been implemented.
- ✓ In response to the novel COVID and India's reliance on API, the government has approved schemes worth INR 10,000 crore and INR 4,000 crore to ensure production of critical drugs and medical equipment respectively within the country.
- ✓ The approved plan would provide financing of INR 3,000 crore (\$394 million) for common infrastructure facilities for three bulk drug parks in India over the next five years. Parks will have common facilities such as solvent recovery plant, distillation plant, power and steam units, and common effluent treatment plants.
- ✓ Under the Production-Linked Incentive (PLI) Scheme, financial incentives will be given to eligible manufacturers of 53 critical bulk drugs on their incremental sales over the base year (2019-20) for a period of six years.



Conclusion

Since the late 1990s, India has lost out to China in the API market. The only way for the Indian drug industry to grow is by investing in research and development and in producing novel drugs that enjoy patent protection. India is the pharmacy of the South, but that dominance is restricted to generics.

This has to change, and the government has to extend support in larger measure. As is the case in the U.S., many drugs that go on to become commercially profitable have their origins in academic and government institutions. The earlier the government realises this and changes its priorities, the better it would be for the country. In this context, the Government focus on increasing APIs production in India and therefore, reducing dependency on import is a welcome step.

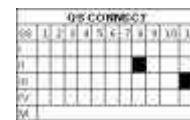


SECURITY

Indian Prisons

News Excerpt

The spread of COVID19 in India's crowded prisons has prompted authorities to release thousands of pretrial detainees on parole, as health experts worry that the cramped facilities are serving as breeding grounds for the disease.



Pre-Connect

- The 1,339 prisons have over 4,60,916 inmates. Uttar Pradesh, Madhya Pradesh, Bihar, Maharashtra, West Bengal and Punjab accounted for more than 50% of the total prisoners in India.
- Last year, Justice Amitava Roy Committee was constituted by the Supreme Court for recommendations on prison reforms.
- However, this is not the first time that a committee has been formed for such a purpose. The recommendations of the A. N. Mulla Committee and the V. R. Krishna Iyer Committee for Women Prisoners in the 1980s proved to be the harbinger of reforms in some prisons in the country.

Issues with Indian prisons

- **Overcrowding:** The total population of prisoners in India was 4.68 lakh against the total sanctioned strength of 3.83 lakh. Some states have even an occupancy rate of 150%.
- **Under-trials:** Around 70 % of the prisoners are under-trials, those who are in custody and awaiting trial for a crime.
- **Prison Staff:** The Prison Department has a vacancy of 30%-40%. This hinders implementation of Prison Manual.
- **Food:** The kitchens are congested and unhygienic and the diet has remained unchanged for years.
- **Corruption:** Extortion by prison staff and guard corruption is common. The low salaries that guards are paid severely aggravate the problem.
- **Class system:** 'Rigid' class system exists in the prisons. Under this system, special privileges are accorded to the minority of prisoners who come from the upper and middle classes.
- **Prison programmes:** Hardly any of the prisons have well planned prison programmes providing structured daily activities, vocational training, pre-discharge guidance and post-prison monitoring.
- **Abuse of women prisoners:** Women prisoners are particularly vulnerable to custodial sexual abuse.
- **Violence:** In the absence of adequate prison staff, overcrowding of prisons leads to rampant violence and other criminal activities inside the jails.

Recommendations of the Law Commission to decongest prisons

- ❖ There were a series of recommendations made by the Law Commission of India in its 268th report in 2017 that highlighted the inconsistencies in the bail system as one of the key reasons for overcrowding in prisons.
- ❖ The Commission recommended that those detained for offences that come with a punishment of up to seven years of imprisonment should be released on completing one-third of that period and for those charged with offences that attract a longer jail term, after they complete half of that period.
- ❖ For those who have spent the whole period as under-trials, the period undergone should be considered for remission.
- ❖ It also recommended that the police should avoid needless arrests, while magistrates should refrain from mechanical remand orders.

Way forward

The Supreme Court had appointed Justice Amitava Roy Committee to give recommendations on prison reforms. Recommendations are as follows:


- Speedy trials to get rid of overcrowding.
- At least one lawyer for every 30 prisoners.

- o Special fast-track courts to deal exclusively with petty offence.
- o Provide vocational skills and education to prisoners.
- o Award sentences like "fine and admonition" if possible, instead of sending the offenders to jails.
- o Release offenders on probation at pre-trial stage or after trial in deserving cases.
- o Recruitment process against permanent vacancies within three months.
- o Allowing new prisoners, a free phone call a day to family members.
- o Modern cooking facilities.
- o Canteens to buy essential items.
- o Trial through video conferencing.

Integrated Battle Groups

News Excerpt

The Army's new concept of agile Integrated Battle Groups (IBG) as part of the overall force transformation will be operationalized very soon.



Pre-Connect

- After the terrorist attack on the Parliament, the Indian military undertook massive mobilisation but the Army's formations which were deep inside took weeks to mobilise, losing the element of surprise. Following this, the Army formulated a proactive doctrine known as 'Cold Start' to launch swift offensive but its existence was consistently denied in the past.
- The Army planned to introduce the IBGs, as part of a far-reaching revamp of its war fighting capability, particularly along the borders with China and Pakistan.
- Ahead of Chinese President Xi Jinping's visit to India in October, the Indian Army carried out the "Him Vijay" exercise in Arunachal Pradesh primarily to test the effectiveness of the IBGs in mountain combat exercise.
- While a command is the largest static formation of the Army spread across a defined geography, a corps is the largest mobile formation.
- Typically, each corps has three divisions and each division has three brigades. The idea is to reorganise them into IBGs which are brigade-sized units but have all the essential elements like infantry, armoured, artillery and air defence embedded together.

Transformation of Army

Army has initiated four major studies to undertake overall transformation of the force. These include:

- ❖ Restructuring of Army Headquarters;
- ❖ Force restructuring which includes creation of Integrated Battle Groups (IBG);
- ❖ The cadre review of officers; and
- ❖ Review of the terms and conditions of Junior Commissioned Officers and Other Ranks.

The aim is holistic integration to enhance the operational and functional efficiency, optimise budget expenditure, facilitate force modernisation and address aspirations.

Tour of Duty

- ✚ The Army plans to take civilians on a three- year 'Tour of Duty' (ToD) or 'three-year short service' on a trial basis to serve in the force as both officers and other ranks initially for a limited number of vacancies and then expanded later.
- ✚ This is expected to result in significant reduction in pay and pensions and free up funds for the Army's modernization.
- ✚ This scheme is for those who did not want a full career in the Army but still wanted to put on the uniform.
- ✚ Individuals who opted for ToD would get a much higher salary than their peers on an average who started a career in the corporate sector and would also have an edge after leaving the Service and going to the corporate sector.
- ✚ The Army hoped that this would attract individuals from the best colleges, including the Indian Institute of Technology.

Highlights

- IBGs will help it carry out

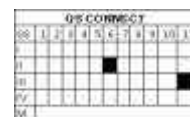
swift strikes in case of a war.

- The IBGs are brigade sized agile self-sufficient combat formations which can swiftly launch strikes against adversary.
- IBG comprise a mix of infantry, artillery, air defense, tanks and logistics units.
- Each IBG will be headed by a Major General and comprise around 5,000 troops.
- Each IBG would be tailor made based on Threat, Terrain and Task and resources will be allotted based on the three Ts.
- They will be able to mobilise within 12-48 hours based on the location.
- Each IBG would be modelled on specific operational requirement considering the topography as well as threat perceptions.
- The key corps of the Army is likely to be reorganised into 1-3 IBGs.
- The IBGs will also be defensive and offensive. While the offensive IBGs would quickly mobilise and make thrust into enemy territory for strikes, defensive IBGs would hold ground at vulnerable points or where enemy action is expected.

Shekatkar Committee

News Excerpt

Defence Ministry has approved a proposal for the abolition of 9,304 posts in the Military Engineering Service (MES). Further, the government has given its nod to three key suggestions on strengthening the infrastructure in border areas.



Pre-Connect

- The abolition of these posts is in line with the recommendations of the Shekatkar Committee, which had suggested measures to enhance combat capability and rebalance armed **forces' expenditure**.
- The 11-member committee, appointed by the late Defence Minister Manohar Parrikar in 2016, had made 188 recommendations from optimising defence budget to the need for a Chief of the Defence Staff.
- Of these, the first batch of 65 recommendations pertaining to the Army was approved in August 2017.
- The recommendations, if implemented over the next five years, can result in savings of up to ₹25,000 crore in defence expenditure.
- Somerecommendations of the committee that are already being implemented include optimisation of Signals establishments, redeployment of Ordnance echelons, closure of military farms and Army postal establishments in peace locations, enhancement in standards for recruitment of clerical staff and drivers in the Army, improving the efficiency of the National Cadet Corps, etc.

Military Engineer Services (MES)

- ❖ The MES is construction and maintenance agency and is part of the Corps of Engineers of the Indian Army.
- ❖ It is responsible for creating the strategic and the operational infrastructure other than major roads, as also the administrative habitat for Army, Air Force and Navy and the associated organisations of the Ministry of Defence.
- ❖ MES is a military organisation but has both Army and Civilian component of officers and other subordinate staff.

Highlights

- The government has approved recommendation of Shekatkar Committee to outsource road construction work beyond optimal capacity of Border Roads Organisation (BRO).
- It has been made mandatory to adopt Engineering Procurement Contract (EPC) mode for execution of all works which cost more than Rs 100 crore.
- The other recommendation pertaining to introduction of modern construction plants, equipment and machinery has been implemented by delegating enhanced procurement powers for the budgetary limits of Rs. 7.5 crore to Rs. 100 crore to BRO, for domestic and foreign procurements.
- New technology like blasting technology for precision blasting, use of geo-textiles for soil

stabilisation, plastic coated aggregates for surfacing, is also being used to enhance the pace of construction.

- With the adoption of Engineering Procurement Mode of execution, it is mandatory to award work only when 90 per cent of the statutory clearances have been obtained.

Analytica

- ✓ The difference in infrastructure on the Indian and Chinese sides is stark.
- ✓ China has made tremendous improvements over the past decade in linking the LAC to the rest of the country. Tibet has a 40,000 km road network and roads run up to the LAC, unlike roads on the Indian side, which stop 60 to 80 km short of the border.
- ✓ **China's railway infrastructure** is expanding rapidly too reaching near Sikkim and Arunachal Pradesh.
- ✓ Apart from extensive road and rail networks, China has also built oil depots.
- ✓ Multiple air bases and forward airstrips near the border areas are additional advantages to China.
- ✓ Together, these suggest that China will not only be able to amass troops and supplies to the LAC rapidly in the event of war but will also be able to sustain operations over a longer period of time.
- ✓ Since the possibility of a future military confrontation cannot be ruled out and it is in this **context that India's poor connectivity to the LAC** is the reason for concern.

Defence Testing Infrastructure Scheme (DTIS)

- ❖ Defence Ministry approved the launch of DTIS with an outlay of ₹400 crore for creating state-of-the-art testing infrastructure for domestic defence and aerospace manufacturing sector.
- ❖ The Scheme would run for the duration of five years and envisages setting up six to eight new test facilities in partnership with private industry. This will facilitate indigenous defence production, consequently reduce imports of military equipment and help make the country self-reliance.
- ❖ The projects under the scheme will be provided with up to 75% government funding in the form of 'Grant-in-Aid'; the remaining 25% of the cost will be borne by the Special Purpose Vehicles (SPV), whose constituents will be Indian private entities and State Governments.
- ❖ The SPVs under the scheme will be registered under the Companies Act, 2013 and shall also operate and maintain all assets under the scheme in a self-sustainable manner by collecting user charge.

Way forward

A realistic assessment of the state of preparedness of India's border infrastructure must be made with timelines drawn to fast-track development, incorporating private players for road infrastructure and complementing capabilities of the BRO. Not making these changes would be detrimental to India's defense.



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ART AND CULTURE


Konark Sun Temple

News Excerpt

The Ministry of New and Renewable Energy (MNRE) has taken up the complete solarisation of Konark Sun Temple and Konark town in Odisha.

[illegible]

Pre-Connect

- In March 2020, the MNRE had announced ₹650 million towards a program for the solarization of the Sun Temple in Modhera, Gujarat. It was the pilot demonstration project for a town that runs entirely on solar energy.
 - While the Odisha project is expected to receive 100% CFA from the MNRE, the Modhera program will receive 50% CFA from the MNRE and 50% from the Government of Gujarat.
- 



Highlights

- The historical town will be developed as ‘Surya Nagri’ to convey a message of synergy between the modern use of solar energy and the ancient Sun Temple and the importance of promoting solar energy.
 - The scheme envisages the setting up of a 10 MW grid connected solar project and various solar off-grid applications like solar trees, solar drinking water kiosks, off-grid solar power plants with battery storage, etc. with a 100 per cent Central Financial Assistance of around ₹25 crore.
 - Odisha Renewable Energy Development Agency (OREDA) will be the implementing agency for the project.
- 

Black Pagoda

- ✓ Today, the Sun Temple is located 2 kms away from the sea but in ancient times, it was much closer. So, the temple was used as a navigational point by European sailors.
- ✓ **They referred to it as the 'Black Pagoda' due to its dark colour and its magnetic power that drew ships into the shore and caused shipwrecks.**

Ganga Dynasty

- ✓ Konark Sun Temple is attributed to king Narasimhadeva I of the Eastern Ganga Dynasty about 1250 CE.
- ✓ The Eastern Ganga dynasty reigned from Kalinga and they ruled modern-day Odisha, some parts of West Bengal, Andhra Pradesh and Chhattisgarh from the 11th to early 15th century.
- ✓ Their capital was Kalinganagar, which is the modern Srimukhalingam in Srikakulam District of Andhra Pradesh bordering Odisha.
- ✓ The dynasty was founded by King Anantavarman Codaganga, descendent of the Western Ganga Dynasty that rule southern parts of modern Karnataka state from 4th century to the end of the 10th century and the Chola dynasty.

Chandrabhaga Mela

- The Chandrabhaga Mela is a popular festival of Odisha.
- It is celebrated on the seventh day of the month of Magha and i.e. also called the Magha Saptami Mela. It usually falls in the month of February.
- According to the religious belief of the localites, the Chandrabhaga Mela is the second most popular festival after the world famous Jagannath PuriRath Yatra.
- Devotees take sacred dips in the holy river Chandrabhaga which is now reduced to a mere pond. Few devotees take religious bath in the nearby beach.
- After the Holy bath, devotees visit the Konark Sun Temple to pay respects.

Significance of Tangible Heritage

- ↔ The cultural industries are key components of modern economies. The prevalence of cultural sites, services and art forms tend to boost tourism, sustain livelihoods and attract investment.
- ↔ The extra-economic benefits of culture include the preservation of history, the generation of knowledge, and the nurturing of creativity.
- ↔ The Status of UNESCO world heritage site brings potential tourism opportunities and international recognition, thus necessitating stringent measures for the protection and preservation of monuments.

Art. 49. Protection of monuments and places and objects of national importance.—It shall be the obligation of the State to protect every monument or place or object of artistic or historic interest, [declared by or under law made by Parliament] to be of national importance, from spoliation, disfigurement, destruction, removal, disposal or export, as the case may be.

Challenges to the Cultural Heritage

- ◇ Lack of funding: Finances continue to be crucial challenges for preservation of cultural heritage. The conservation and preservation of heritage has not received due attention from public authorities.
- ◇ Lack of trained manpower: Few people are conscious about cultural heritage preservation and its being a viable occupation. At institutional level lack of efforts in mainstreaming heritage preservation as career and providing skills remains a formidable challenge.
- ◇ Lack of awareness: There is widespread lack of civic sense among domestic visitors who tend to deface historical monuments e.g. by inscribing their names on historical monuments.
- ◇ Illegal Encroachments: Nearby to our heritage monuments several people started their commercial activities. As well as several people build their residential buildings. Encroachment develops by local shopkeepers, souvenir sellers, local residents.
- ◇ Environmental Pollution: The environmental pollution like air pollution, water pollution, noise pollution etc are very harmful for our heritage. Taj Mahal was badly affected by Sulphur dioxide etc. emitted by oil refinery at Mathura.

Art. 51A. Fundamental duties. — It shall be the duty of every citizen of India—

(f) to value and preserve the rich heritage of our composite culture;

Gorakhpur Terracotta

News Excerpt

Gorakhpur has got a Geographical Indication (GI) tag for its traditional terracotta craft.

Pre-Connect

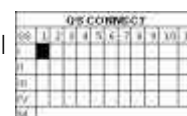
Terracotta is a unique and special kind of ceramic craft. It is the term normally used for sculptures made in earthenware, and also for various utilitarian products including vessels water and waste water pipes, roofing tiles, bricks, and surface embellishment in building construction.

Highlights

- The terracotta work of Gorakhpur is a centuries-old traditional art form, where the potters make various animal figures like horses, elephants, camel, goat, ox, etc. with hand-applied ornamentation.

Geographical Indication Tags

- ❖ GI tags are granted for produce or products originating from and having unique qualities corresponding to a geographical area.
- ❖ The tag gives exclusive right to its holders over the uniqueness of the product.
- ❖ This also ensures that none other than the right holders to claim or use the product name attributing to its geographical origin.



- Some of the major products of craftsmanship include the Hauda elephants, Mahawatdar horse, deer, camel, five-faced Ganesha, single-faced Ganesha, elephant table, chandeliers, hanging bells etc.
- The entire work is done with bare hands and artisans use natural colour, which stays fast for a long time.



KovilpattiKadalaiMittai

News Excerpt

Tamil Nadu's KovilpattiKadalaiMittai was granted the Geographical Indication (GI) Tag.

Pre-Connect

- Kovilpattikadalaimittai is a peanut candy originally prepared during village festivals using palm jaggery and groundnuts.
- In the 1940s, it began to be prepared using sugarcane jaggery and peanuts.
- The candy also began to be cut into rectangular shapes instead of the traditional balls.

Highlights

- The candy is produced from groundnuts and organic jaggery.
- It gets its unique flavour from the use of the special Theni jaggery.
- The groundnuts are grown in the native black soil of Kovilpatti.
- The other recognised uniqueness includes the production process which is done using 'VeraguAduppu' (firewood stove).



Telia Rumal

News Excerpt

Puttapaka in Nalgonda, Telangana is now on the global map as the centre for a handloom technique known as Puttapaka Telia Rumal. It secured the coveted Geographical Indication tag recently.

Pre-Connect

- During the Nizam's dynasty, Puttapaka, a small, backward village of the Telangana region of Andhra Pradesh had about 20 families engaged in handloom weaving, who were patronised by rich Muslim families and the Nizam rulers.
- The officers working in the court of the Nizam would wear the Chituki Telia Rumal as a symbolic representation of status.
- Telia Rumals are offered at the dargah of Ajmer Sharif in Rajasthan with some devotees offering 50 or even 100 cloths.
- Telia Rumals were worn as a veil by princesses at the erstwhile court of the Nizam of Hyderabad; and as a turban cloth by Arabs in the Middle East.



Highlights

- Telia Rumal is a unique tie and dye technique that uses oil for the treatment of the yarn

that helps it retain softness and has a distinct smell of gingelly oil.

- The earlier patterns used to be strictly geometric or vegetal patterns due to the preference of the patrons, but after 1930s the craftsmen started incorporating figurative elements like lions, elephants, birds, clocks and even aeroplanes, which required better weaving skills.
- It is no longer handkerchief-size pieces. Weavers now create saris, dupattas, dress materials and other made-to-order pieces with the same techniques and exotic patterns.
- Telia Rumal cloth involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white.
- Telia Rumal can only be created using the traditional handloom process and not by any other mechanical means as otherwise, the very quality of the Telia Rumal would be lost.

In Arab countries, the Muslim women used to wear these Telia Rumals as head scarves. This fabric gave them a cool feel during blazing summers. And in winters, it kept them warm.

The fishermen in Mumbai and Andhra Pradesh used them as lungi (loincloth), turbans or shoulder cloths because the oil in this cloth did not let salt water seep through.

SohraiKhovar Painting

News Excerpt

Jharkhand's SohraiKhovar painting was given the Geographical Indication (GI) tag.

Pre-Connect

- Khovar refers to the decoration of the marriage chambers and Sohrai is the harvest painting on the mud houses, repairing it after the rains and offering a thanksgiving to the forces of Nature.
- These paintings were discovered in Hazaribagh. One can see around 10 painted villages within a 50 km radius.
- Each village belongs to a different community or tribe. Hence, their motifs and style of drawing is different.

Highlights

- The SohraiKhovar painting is a traditional and ritualistic mural art being practised by local tribal women.
- It is practised during local harvest and marriage seasons.
- Local, naturally available soils of different colours in the area of Hazaribagh district of Jharkhand are used.
- The SohraiKhovar painting is primarily being practised only in the district of Hazaribagh. However, in recent years, for promotional purposes, it has been seen in other parts of Jharkhand.
- Traditionally painted on the walls of mud houses, they are now seen on other surfaces too.
- The style features a profusion of lines, dots, animal figures and plants, often representing religious iconography.
- In recent years, the walls of important public places in Jharkhand, such as the Birsu Munda Airport in Ranchi, among others, have been decorated with Sohrai-Khovar paintings.
- In recent years, the Khovar and Sohrai art seem to be vanishing in the villages since mud walls are being replaced by brick and cement plaster.



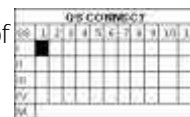
DISCONNECT											
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- Also, young girls are reluctant to undertake the strenuous work of painting alongside their studies. Increasing migration to cities is another major reason.

Kashmir Saffron

News Excerpt

Kashmir saffron, which is cultivated and harvested in the Karewa (highlands) of Jammu and Kashmir, has been given the Geographical Indication (GI) tag.



Pre-Connect

- Saffron cultivation is believed to have been introduced in Kashmir by Central Asian immigrants around 1st Century BCE.
- In ancient Sanskrit literature, **saffron is referred to as 'bahukam'**.
- Iran is currently the largest producer of saffron in the world cultivating over 300 tonnes every year.
- In Kashmir, which ranks second in supply, saffron cultivation is limited to about one-eighth that area- 3,715 hectares.
- Pampore, the township in Pulwama district with around 3,200 hectares of land under saffron cultivation, produces the most in the Valley.

Types of Saffron in Kashmir

The saffron available in Kashmir is of three types.

- ❖ **'Lachha Saffron'**, with stigmas just separated from the flowers and dried without further processing;
- ❖ **'Mongra Saffron'**, in which stigmas are detached from the flower, dried in the sun and processed traditionally; and
- ❖ **'Guchhi Saffron'**, which is the same as Lachha, except that the latter's dried stigmas are packed loosely in air-tight containers while the former has stigmas joined together in a bundle tied with a cloth thread.

Highlights

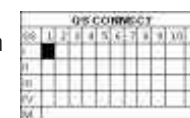
- Kashmir Saffron, known as Zafraan locally, is the only saffron in the world grown at an altitude of 1,600 m to 1,800 m AMSL (above mean sea level), which adds to its uniqueness and differentiates it from other saffron varieties available the world over.
- The unique characteristics of Kashmir saffron are its longer and thicker stigmas, natural deep-red colour, high aroma, bitter flavour, chemical-free processing, and high quantity of crocin (colouring strength), safranal (flavour) and picrocrocin (bitterness).
- It is considered the highest quality of saffron worldwide because of the higher concentration of crocin, a carotenoid pigment that gives saffron its colour and medicinal value. While the crocin content of the Iranian saffron is 6.82 per cent, the crocin content of Kashmiri saffron is 8.72 per cent. This gives the Kashmir zafraan a dark colour and enhanced medicinal value.

Karewas are the thick deposits of glacial clay and other materials embedded with moraines.

Black Rice

News Excerpt

Chak-Hao, the black rice of Manipur has bagged the Geographical Indication (GI) tag.



Pre-Connect

- Black rice is indigenous of north-east and extensively grown in Odisha, West Bengal and Jharkhand. It has medicinal importance.
- That dark colour of Black Rice is due to an excess of anthocyanin, a powerful antioxidant.

Highlights

- Chak-Hao is a scented glutinous

The Intellectual Property Appellate Board (IPAB), established in 2003, is the appellate tribunal to hear appeals against decisions of the Controller of Patents as also Registrar of Trade Marks and Geographical Indications. Under the Finance Act, 2017, the Copyright Board has also been merged in the IPAB. It is headquartered at Chennai.

rice characterised by its special aroma.

- It is not grown commercially but in small pockets. The use of the rice is limited to ritual feasts and festivities. It is normally eaten during community feasts and is served as Chak-Hao kheer.
- Chak-Hao has also been used by traditional medical practitioners as part of traditional medicine.
- This rice takes the longest cooking time of 40-45 minutes due to the presence of a fibrous bran layer and higher crude fibre content.

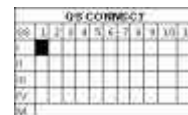
BishnuSendra Parva

News Excerpt

For the first time, not a single animal was killed on BishnuSendra Parva.

Highlights

- BishnuSendra Parva is an annual hunting festival observed by tribals of Jharkhand and the neighbouring Odisha and West Bengal.
- The festival is a years old ritual where tribals from the state and bordering areas of Orissa, Bihar and Bengal, join to hunt in the forests of Dalma hills on the outskirts of Jamshedpur.
- The tribals offer animals and birds as sacrifice to the local deity, Dalma Guru.



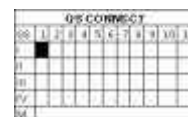
Hindi PatrakaritaDiwas

News Excerpt

The Hindi Journalism Day (or Hindi PatrakaritaDiwas) is celebrated every year on May 30 in India to mark the beginning to journalism in Hindi language.

Pre-Connect

- Hindi Journalism Day refers to media in Hindi language and its dialects, across the Hindi belt in India, and elsewhere with Hindi-speaking Indian diaspora.
- On 30 May 1826, the first Hindi newspaper of India called UdantMartand was edited and published.
- **This day is celebrated as the “Hindi Journalism Day”, or “Hindi PatrakaritaDiwas” as it marked the beginning to journalism in Hindi language.**
- **India has a long history of printing. India’s first printing press was set up as early as in 1674 in Mumbai (Bombay).**



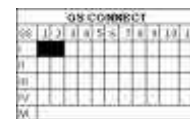
Highlights

- The first Hindi newspaper UdantMartand (The Rising Sun), a weekly was published in Calcutta on May 30, 1826 "in the interest of Hindustanis.
- **UdantMartand’s editor Yugal Kishore Shukla faced many difficulties in running it.**
- Yugal Kishore Shukla was not allowed postal concession and had to close down the paper in a year.
- Yugal Kishore Shukla made an attempt to start another paper in 1850 called SamyadaniMartand but it also failed.
- The second Hindi newspaper Bangadoot was published in 1829 by Raja Ram Mohan Roy and Dwarika Prasad Thakore with NilratanHaldar as its editor.
- Besides Hindi, Bangadoot was also published in English, Bengali and Persian.
- Calcutta General Advertiser, the first newspaper of India (also known as the **Hicky’s Bengal Gazette**) started in January 1780.
- The first Hindi daily, Samachar Sudha Varshan, started in 1854 – three years before the first freedom struggle of India in 1857.

Katkari Tribe

News Excerpt

A group of tribal youth from the Katkari community in Shahpur (Maharashtra) has come together to market Giloy, an herb used in treatment of viral fever, malaria as well as diabetes. The herb has a huge demand from pharmaceutical companies.



Pre-Connect

- Katkari is one of the 75 Particularly Vulnerable Tribal Groups (PVTGs) in India.
- There are certain tribal communities who use a pre-agricultural level of technology, face stagnant or declining population growth, and are equipped with only an extremely low level of literacy and a subsistence level of economy.
- 75 such groups of tribals in 18 States and one Union Territory have been identified and categorized as PVTGs.
- Katkaris are located primarily in Raigad district of Maharashtra. They are also found in Gujrat.

Highlights

- The youth were helped by the Pradhan Mantri Van Dhan Yojana (PMVDY) run by TRIFED, Ministry of Tribal Affairs.
- Giloy is used in medicines which treat various kinds of fever (viral fever, malaria, etc.) as well as diabetes. It is used in extract form, powder form or cream.

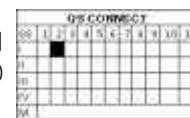
PMVDY

- ❖ It is a retail marketing led value addition plan for Minor Forest Produce (MFP), meant for forest-based tribes to optimize the tribal income, locally.
- ❖ Under the program, MFP-based tribal groups / enterprises of around 300 members are formed for collection, value addition, packaging & marketing of Minor Forest Produces (MFPs).
- ❖ These tribal enterprises are in the form of Van Dhan SHGs which are a group of 15-20 members and such 15 SHG groups are further federated into a larger group of Van Dhan Vikas Kendras (VDVKS) of around 300 members.
- ❖ **PMVDY provides working capital for these SHGs. So they don't have to sell their produce in distress, moreover they can immediately pay tribals for produce they have picked up, this greatly helps tribals in having steady income.**
- ❖ TRIFED supports the VDVKS through providing them with model business plans, processing plans & tentative list of equipment for carrying out the value addition work of MFPs.

RamkinkarBaij

News Excerpt

On the occasion of the 115th birth anniversary of RamkinkarBaij, the National Gallery of Modern Art in New Delhi organised a virtual tour featuring 520 never-seen-before works of the Baij.



Pre-Connect

- RamkinkarBaij, one of the most seminal artists of modern India, was an iconic sculptor, painter and graphic artist.
- A student of Kala Bhavana in Shantiniketan, Baij trained under Nandalal Bose.
- He took Shantiniketan to the pinnacle of modern art movement in pre-independence India.
- Baij is best known for his mammoth sculptures that adorn public spaces, especially because he introduced the use of cement, laterite and mortar while creating them.
- Mill Call, Santhal Family, Buddha and Sujata are some of his landmark creations.

Highlights

DELHI: VIJAY NAGAR 9717380832 & OLD RAJENDER NAGAR 9811293743 | JAIPUR: 8290800441
 BENGALURU: KORMANGALA 7619166663 & CHANDRA LAYOUT 7619136662 | BHOPAL: 7509975361
 PATNA: 7463950774 | INDORE: 7314977441 | RANCHI: 9939982007 | www.ksgindia.com
 for any KOL related Queries feel free to contact +91-9868005599

This virtual tour presents the works of art from the prominent artworks of Ramkinkar Baij from reserve collection of NGMA, grouped in a series of five different themes of (i) Portrait, (ii) Life Study, (iii) Abstract & Structural Composition, (iv) Nature Study & Landscape and (v) Sculptures

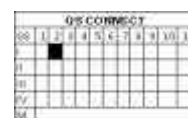
National Gallery of Modern Art

- ❖ It is the premier art gallery under Ministry of Culture that houses modern and contemporary Indian art.
- ❖ It was established in 1954.
- ❖ The principal aims and objectives of the National Gallery of Modern Art are:
 - To acquire and preserve works of modern art from 1850s onward
 - To organize, maintain and develop galleries for permanent display
 - To organize special exhibitions not only in its own premises but in other parts of the country and abroad.

Suman Gawani

News Excerpt

Major Suman Gawani of the Indian Army, who served as a peacekeeper with the United Nations Mission in South Sudan (UNMISS) in 2019, has won the prestigious United Nations Military Gender Advocate of the year Award.



Pre-Connect

- As a military observer in UNMISS from November 2018 to December 2019, she encouraged participation in joint military patrols to maintain gender balance, irrespective of the hardships under extreme field conditions.
- She also strived to integrate gender perspective into the planning and military activity in the mission.
- She participated in various UN forums to demonstrate how a gender perspective can help in protecting civilians, especially from conflict-related sexual violence.

UN Peacekeeping

- ❖ UN peacekeepers provide security and the political and peacebuilding support to help countries make the difficult, early transition from conflict to peace.
- ❖ UN Peacekeeping is guided by three basic principles:
 - Consent of the parties;
 - Impartiality;
 - Non-use of force except in self-defence and defence of the mandate.
- ❖ There are currently 13 UN peacekeeping operations deployed on three continents.
- ❖ India is the fifth largest contributor of uniformed personnel to UN Peacekeeping.
- ❖ It currently contributes more than 5,400 military and police personnel to the UN peacekeeping operations.

Highlights

- Peacekeepers Major Suman Gawani from India and Commander Carla Araujo from Brazil won the 2019 UN Military Gender Advocate of the Year Award.
- This is the first time the prestigious award has gone to a peacekeeper from India.
- Four Indian peacekeepers and civilian personnel were honored posthumously with the prestigious Dag Hammarskjöld Medal for their courage and sacrifice in the line of duty.
- The year 2020 marks the 20th anniversary of Security Council Resolution 1325 on Women, Peace and Security.
- **The theme for the International Day of UN Peacekeepers this year is 'Women in Peacekeeping: A Key to Peace.'**

MISCELLANEOUS

Miscellaneous

Hanko

As the number of Covid cases in Japan rise, the hanko tradition is coming under fierce criticism, with industry leaders demanding that the tradition be abandoned. Japanese Prime Minister Shinzo Abe called for a relook into the practice and pushed for the digitisation of contracts.

The hanko is a personal stamp that is equivalent to a signature in other countries, and is an essential part of several transactions. Small-sized and circular or square-shaped, the stamp is wet by an ink pad called 'shuniku', and the mark that it leaves on a document is called 'inkan'. Hanko is quite popular in Japan.



There are specific types of the hanko that are used for authorising different kinds of transactions, such as those requiring registered seals, bank documents, and for day-to-day use. The centuries-old practice is causing employees to go to their workplace even when government is promoting work from home, as companies prefer to keep their registered seals at the office premises for security reasons.

Pulitzer Prize

Three photojournalists from Jammu and Kashmir are among the 2020 Pulitzer Prize winners.

- The Pulitzer Prize is named after the Jewish, Hungarian-born, American newspaper publisher Joseph Pulitzer was established in 1917.
- It is a series of prizes that are awarded each year by Columbia University, New York City, for outstanding public service and achievement in American journalism, letters, and music. Fellowships are also awarded.
- The awards are made by Columbia University on the recommendation of the Pulitzer Prize Board, composed of judges appointed by the university.
- The prizes have varied in number and category over the years but currently there are 21 prizes out of which 14 prizes in the field of journalism, 6 prizes in letters, and 1 prize in music.



Map of China, Taiwan and South China Sea

In a speech after being sworn in for her second and final term in office, Tsai said relations between Taiwan and China had reached an historical turning point. **“Both sides have a duty to find a way to coexist over the long term and prevent the intensification of antagonism and differences,” she said.**

Vesak: The Day of Full Moon (UN)

- "Vesak", the Day of the Full Moon in the month of May, is the most sacred day for Buddhists as on this Day two and a half millennia ago (623 B.C.) the Buddha was born.
- It was also on the Day of Vesak that the Buddha attained enlightenment, and it was on the Day of Vesak that the Buddha in his eightieth year passed away.
- The General Assembly, by its resolution 54/115 of 1999, recognized internationally the Day of Vesak to acknowledge the contribution that Buddhism
- This day is commemorated annually at the UN Headquarters and other UN offices, in consultation with the relevant UN offices and with permanent missions, which also wish to be consulted.

National Technology Day

- National Technology Day is celebrated on May 11 as on this day in 1998 India successfully carried out nuclear tests at Pokhran i.e. this marks the anniversary of Pokhran nuclear tests of 1998 and India's technological advancements in this space.
- Pokhran nuclear tests were a series of five nuclear bomb test explosions conducted by India at the Indian Army's Pokhran Test Range.
- This year, on behalf of the Ministry of Science & Technology, Technology Development Board (TBD) has organised a conference to celebrate the day.
- **The theme of the conference is 'Rebooting the Economy through Science, Technology and Research Translations titled RESTART'.**

Vande Bharat Mission

- Vande Bharat Mission that aims at bringing home stranded Indians in many countries due to Covid-19 pandemic via different flights.
- The Vande Bharat Mission began on May 7 with two flights landing in Kochi and Kozhikode from Abu Dhabi and Dubai.
- Mission is not just about bringing back people to India but also involve screening, quarantine and other arrangements that will have to be made for citizens.
- Vande Bharat Mission operated from May 7 to 13 involves 64 flights from ten nations to evacuate more than 15000 Indians stranded because of Covid 19.
- According to the schedule, 41 Air India flights and 27 Air India Express flights from various foreign cities like Singapore, Riyadh, London Dhaka, Kuala Lumpur to Indian cities like Chennai, Tiruchirapalli, Mumbai, Delhi, Hyderabad are operated over seven days.

Operation SamundraSetu

- Indian Navy has launched Operation **"Samudra Setu"** - **meaning "Sea Bridge"**, as a part of national effort to repatriate Indian citizens from overseas.
- Indian Naval Ships (INS) *Jalashwa* and INS *Magar* was enroute to the port of Malé, Republic of Maldives.
- In the first phase, INS *Jalashwa* had evacuated a total of 698 Indian nationals stranded in the Maldives on 10 May 20.
- Indian Navy has deployed INS *Magar* for second phase of repatriation of Indian citizens from Maldives.



Concept Clearing Assignment

1. How does the energy efficiency initiatives of India will have a multiplier effect on energy and environment ecosystems? Substantiate your views. And also highlight the challenges involved in it.
2. Amid COVID-19 the intended long-term investments in energy transition are likely to be halted and may metamorphosed into prioritized investment in health and social sector. What measures should India have to adopt to cope with duo issues? And also highlight the role of **subsidies in making a shift in India's energy transition**.
3. What are the factors attributed to the formation of a super cyclone? Differentiate the super cyclone and a tropical cyclone. Why India is prone to such extreme weather events? And also comment on the importance of nomenclature of Indian Ocean Cyclone.
4. Give a reason account for the diminishing of global forest areas. Why the trend of declining in forest areas is profound and worrisome in Africa. Explain in context of Global Forest Resources Assessment 2020? Suggest measure.
5. The recent initiative of using coir geotextile as a substance in road construction under Pradhan Mantri Gram Sadak Yojana (PMGSY-III) will give impetus to the revival of indigenous industries and employment opportunities during outbreak of COVID-19. **Comment. Also explain its' unique features.**
6. What is Ultraviolet Germicidal Radiation (UVGI)? Explain the main advantages associated with it.
7. Despite the declining share of agriculture in overall national income and system of minimum support price to procure farm products. Do you think that various **'income support initiatives' for farmers are fiscally relevant? Comment.**
8. **"Growing power differential between India and China is a primary reason behind the new Chinese assertiveness on its borders with India".** Comment in the light of India-China border dispute.
9. Induction of **integrated battle groups (IBG) is a part of India's approach to modernize and initiate reform in army.** Why there is need of IBG especially on the western front of India?
10. Terracotta art came to its own with the advent of human life and its aesthetic quality and skill was associated with urban milieu. In the context of above statement explain the key features of Gorakhpur terracotta?
11. In the age of COVID-19, there is need to redefine dialogue on globalization to **include social and humanitarian issues, but this doesn't seem to be a priority of global major powers.** Critically examine in the light of issues faced by G20.
12. **The delimitation is a tool of 'equitable representation of population' and realization of the principle 'one vote one value'.** Comment and trace the constitutional sources for enactment of Delimitation commission.
13. Explain the main objectives of Pradhan Mantri MatsyaSampadaYojna. What substantial shift it can make in Indian fishery? Explain. And also suggest the way forward.
14. Explain the Afghan Peace process. Do you think India needs a pro-active engagement policy in order to have a considerable equities in Afghanistan and beyond? Substantiate your views.
15. The MSME sector was already facing a persistent downside additionally the pandemic outbreak has disrupt the MSME sector dreadfully. In this context whether the recent fiscal-stimulus package for MSME would reshape the entire sector or stimulus package would collapse under its own burden?

P.T Oriented Questions

1. With reference to solar minimum, consider the following statements:
 1. It could be a hazard to astronauts and produce more storms.
 2. Sun enters solar minimum when fewer sunspots appear on the start.
 3. Sunspot is an area of intense magnetic activity on the surface of the Sun that appears as an area of intense brightness.

Which of the statements given above are correct?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

2. Consider the following statements:
 1. It is a colorless, toxic, organic compound.
 2. It is used in manufacturing of containers for foodstuffs and synthetic marble.
 3. When with air it could become deadly.
 4. It has very high boiling points.

Which of the following gases given below best describe by the above statements?

- (a) Methyl Isocyanate
(b) Methane
(c) Styrene
(d) None of the above

3. Which of the following Malwares best describe the term 'EventBot' recently seen in news?

- (a) Virus
(b) Trojans
(c) Spyware
(d) Ransomware

4. Consider the following statements regarding the Indian Computer Emergency Response Team (CERT-In).

1. CERT-In collect, analysis and dissemination of information on cyber incidents.
2. Recently CERT-In warns people against Malware which can affect Android Smartphone user by stealing their personal financial

information.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

5. Which of the following statement are **correct regarding the 'Silent Hypoxia'** recently seen in news?

1. Hypoxia is a condition wherein there is not enough oxygen available to the blood and body tissues.
2. Silent Hypoxia is the condition in which patients appear to be less in distress despite having oxygen levels below 80 per cent.

Select the correct answer using the code given below:

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

6. Consider the following statements regarding Ultraviolet Germicidal Radiation:

1. It uses short wave ultraviolet energy to detect the virus in public places.
2. UV lights are electromagnetic energy with wavelengths shorter than x-rays.
3. Exposure of cell in UV lights will kill them by damaging their DNA.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

7. Consider the following statements regarding the Bay of Bengal Boundary Layer Experiment:

1. It is project funded by Union Ministry of Earth Sciences and USA.
2. This will help in accurate

prediction of monsoon, tropical cyclones and other weather related forecast.

3. This study will help in understanding role of large-scale ocean structure and ocean dynamics in the monsoon.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

8. With reference to the ICUBE report, consider the following statements:

1. The report suggested that monthly active users in rural areas decreases as compare to last year.
2. According to report, school going children segment in the age group of 15 years or below has shown a promising growth on the internet usage.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

9. Consider the following statements regarding the Zoonotic diseases:

1. One of the main reasons of spreading Zoonotic diseases is deforestations.
2. Eating of cooked meat and eggs is one of the reasons due to which transmission of these occurs.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

10. With reference to Pradhan Mantri MatsyaSampadaYojna, consider the following statements:

1. By introducing new technology in the deep sea mining this scheme will help to boost Blue Economy.
2. It will help in improvement of the domestic fish consumption.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

11. Consider the following statements regarding the UNICEF Lost at Home Report:

1. This report shows both internal and external displacement of children and their family around the world.
2. According to the report most of the displacement of people in Asia is due to natural disaster.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

12. Consider the following statements regarding the Prime Minister Research Fellowship Scheme 2020-21:

1. To boost the research in academic institutions of India, Ph.D. students will get chance to work with top class universities in the world.
2. Selected student will get financial benefits for the entire period of the course.
3. Reduction in GATE score and lateral entry option are introduced to attract student for admission.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

13. With reference to Stringency Index, consider the following statement:

1. It is created by the joint effort of the World Health Organization and Oxford University.
2. India is the only country which scores 100 in index.
3. **It shows how strict a country's measures were and at what stage**

- of the spread it enforced these.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only
(b) 3 only
(c) 1 and 3 only
(d) 1, 2 and 3
14. Consider the following statements regarding Global Nutrition Report 2020:
1. According to the Report, India will miss targets for all four nutritional indicators identify by World Health Assembly.
 2. India is identified as among the three worst countries for steep within-country disparities on shunting.
- Which of the statements given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
15. Which of the following statements is/are correct regarding Sample Registration System (SRS)?
1. The death rate of India has witnessed a significant decline over the last four decades.
 2. Infant Mortality Rate of urban areas is greater than the rural areas.
- Select the correct answer using the code given below:
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
16. Consider the following statements regarding Contract Farming recently seen in news:
1. No genetically modified crops are permitted in contract farming.
 2. It is an agreement between farmer and buyer when crop is ready for sell.
- Which of the statement given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
17. Recently a new feature is added in Umang app, in this context which of the following statements is correct?
- (a) Service of Employees' Provident Fund (EPF) is added by Ministry of Electronic and Information Technology.
(b) The app user now has digital payments option.
(c) The app user now checks the weather forecast of their city.
(d) None of the above
18. Consider the following statements:
1. Excise does not exist in India after the introduction of GST but petroleum product comes under Excise duty.
 2. Before GST basic excise duty was imposed on salt and goods classified under first schedule.
- Which of the statement given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
19. Consider the following statements regarding Open Budget Survey conducted by International Budget Partnership (IBP):
1. **According to the survey, India's** Budget transparency score is lower than the global average score.
 2. Absence of a published Pre-Budget **statement pulled down India's** transparency score.
- Which of the statement given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
20. Consider the following statements regarding digital currency recently seen in news:
1. All digital currencies are crypto currencies.
 2. Recently, RBI bans financial

- institutions from enabling deals in digital or crypto currencies.
- Which of the following statements is/are *incorrect*?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2

21. Recently, Gorakhpur has got Geographical Indication (GI) tag in which of the following categories?
- Agriculture
 - Terracotta Craft.
 - Textile
 - None of the above

22. Which of the statements is/are correct **regarding the 'Telia Ruma'** recently seen in news?

1. Telangana is on the global map because of handloom technique known as Telia Ruma.
2. It is a unique tie and dye technique that uses oil for the treatment of the yarn that helps it retains softness.

Select the correct answer using the code given below:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

23. Consider the following pairs

State	GI Tags
Manipur	Black Rice
Jammu and Kashmir	Handloom Technique
Jharkhand	SohraiKhorPainting

Which of the following pairs given above are correctly matched?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

24. Consider the following statements regarding Global Energy Transition Index:

1. Transition is a pathway toward transformation of global energy

sector from fossil based to zero-carbon.

2. According to the Index in Asia only China made improvements on overall ETI score.
3. India has moved up two positions on a Global Energy Transition Index.

Which of the statements given above are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

25. Consider the following statements regarding Coir Geotextiles:

1. It possesses the great tearing strength even in wet condition.
2. It get soften when heat applied that is the reasons it is not used in construction of Roads.
3. Recently, Government has approved its use in construction of house under Pradhan Mantri Awas Yojana.

Which of the statements given above is/are correct?

- 1 only
- 1 and 2 only
- 1 and 3 only
- 2 and 3 only

26. **With reference to 'Li-Fi', recently in the news,** which of the following statements is/are correct? (UPSC 2016)

1. It uses light as the medium for high-speed data transmission.
2. It is a wireless technology and is **several times faster than 'Wi-Fi'**.

Select the correct answer using the code given below.

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

27. India is an important member of the **'International Thermonuclear Experimental Reactor'**. If this experiment succeeds, what is the immediate advantage for India? (UPSC 2016)

- (a) It can use thorium in place of uranium for power generation
 (b) It can attain a global role in satellite navigation
 (c) It can drastically improve the efficiency of its fission reactors in power generation
 (d) It can build fusion reactors for power generation
28. With reference to Asian Infrastructure Investment Bank (AIIB), consider the following statements: (UPSC 2019)
1. AIIB has more than 80 member nations.
 2. India is the largest shareholder in AIIB.
 3. AIIB does not have any members from outside Asia.
- Which of the statements given above is/are correct?
- (a) 1 only
 (b) 2 and 3 only
 (c) 1 and 3 only
 (d) 1, 2 and 3
29. In India, 'extended producer responsibility' was introduced as an important feature in which of the following? (UPSC 2019)
- (a) The Bio-medical Waste (Management and Handling) Rules, 1998
 - (b) The Recycled Plastic (Manufacturing and Usage) Rules, 1999
 - (c) The e-Waste (Management and Handling) Rules, 2011
 - (d) The Food Safety and Standard Regulations, 2011
30. Consider the following statements: (UPSC 2019)
1. **Most of India's external debt** is owed by governmental entities.
 2. **All of India's external debt** is denominated in US dollars.
- Which of the statements given above is/are correct?
- (a) 1 only
 (b) 2 only
 (c) Both 1 and 2
 (d) Neither 1 nor 2

ANSWER KEY

- | | | |
|-------|-------|-------|
| 1. A | 11. B | 21. B |
| 2. C | 12. B | 22. C |
| 3. B | 13. B | 23. C |
| 4. C | 14. C | 24. C |
| 5. C | 15. A | 25. A |
| 6. C | 16. A | 26. C |
| 7. B | 17. C | 27. D |
| 8. B | 18. A | 28. A |
| 9. A | 19. B | 29. C |
| 10. B | 20. C | 30. D |



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KANISHAK KATARIA
(AIR - 1)

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I am highly indebted to Khan Sir and KSG for their guidance and feedback, especially for the interviews. Khan Sir was very motivating and available for one-to-one interactions. His critical analysis and pinpoint identification of my strengths and weaknesses helped me a lot. I also followed his videos on Youtube which were quite beneficial. Thank You Sir for your support & guidance.

Signature: 

AKSHAT JAIN
(AIR - 2)

TESTIMONIAL


I would like to thank KSG and Khan Sir for their guidance and motivation. The mock interview at KSG was particularly helpful in understanding the intricacies of the interview/personality test. It helped me identify my strengths and weaknesses in a timely manner, and work upon them accordingly.

Signature: 

SRUSHTI JAYANT DESHMUKH
(AIR - 5)

TESTIMONIAL

Thank you so much to the entire team of Khan Study Group! KSG's foundation course has been my starting point. It has helped me a lot. The focus on answer writing from Day-1 really contributed a lot. A special thanks to Khan Sir, for his motivating aura and good words.

Signature: 

SHUBHAM GUPTA
(AIR - 6)

TESTIMONIAL

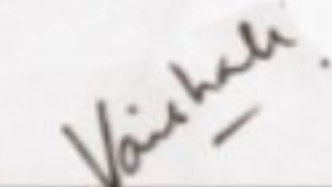
Khan Sir, Thank you so much for always being encouraging and keeping a positive mindset. Your guidance for the personality test has helped me significantly in attaining the success that I have been able to. Your personal interactions with me has always motivated me to keep an inquisitive mindset and optimistic attitude. Thanks again to you Sir and the entire KSG team.

Signature: 

VAISHALI SINGH
(AIR - 8)

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I cannot thank KSG & Khan Sir enough for their guidance throughout the interview process. It was much needed and, it were his words which inspired me to perform well. Thank you so much!

Signature: 

GUNJAN DWIVEDI
(AIR - 9)

TESTIMONIAL

KSG played a very important role in my preparation. The excellent guidance I received from Khan Sir helped me achieve my childhood dream. Thank you for all the support.

Signature: 

DELHI NORTH 2521, 1 st Floor Hudson Lane, Vijay Nagar Chowk, Near GTB Nagar Metro Station Delhi- 110009	DELHI CENTRAL 56/4, Bada Bazar Marg, Old Rajender Nagar Market, Near Salwan Public School Gate No-2, Delhi- 110060	JAIPUR TONK ROAD 403-404, 4 th floor Apex Tower, Lal Kothi, Tonk Road Jaipur- 302015	BHOPAL M.P NAGAR, ZONE II Plot No. 48, 1 st & 2 nd Floor, Behind Sargam Talkies, Zone II, M.P Nagar Bhopal- 462011	PATNA EXHIBITION ROAD Above Toyota Showroom, CEAT Compound, Exhibition Road, Near Gandhi Maidan, Patna- 800001	INDORE BHAWAR KUAN 232-233, 2 nd Floor, Veda Building, Near Apple Hospital, Bhawar Kuan Square Indore- 452001	BENGALURU KORAMANGALA 116/C-1, 3 rd Floor, behind Airtel office 2nd Cross Road, KHB Colony, 5 th Block, Koramangala Bengaluru- 560095	BENGALURU CHANDRA LAYOUT 94, 2 nd floor, Kasabha Hobli, Above Domino's Pizza, 4 th Main Rd., Maruthi Nagar, Chandra Layout, Bengaluru, Karnataka-560040	RANCHI SIRAM TOLI CHOWK 3 rd floor strawberry Hill New garden Siram Toli Chowk Ranchi - 834001
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